



A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

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AN IMPROVED ELEVATOR CAR.

The illustration represents an elevator car designed to facilitate the handling, transferring, and stowage into cars of grain that has been deposited into cribs or granaries along the line of a railway, affording an elevator privilege at every station in the country upon roads employing such cars. It has been patented by Mr. James E. Snevely of Chetopa, Kan. The car is divided into three compartments, one of which accommodates a boiler and engine, the smokestack being hinged to fold down upon the car roof when the car is in transit. In the second compartment is a frame, adapted to be raised by chains and windlasses, or lowered so that its top will be flush with and form a portion of the car roof, the windlasses being located in the third compartment. The framework supports hoppers connected with scale beams so arranged that the weight of the grain may be read by an attendant upon the car roof, and the hoppers have discharge orifices to a conveyor belt that leads to a chute extending outward through the side of the car, where it is connected with such number of conveyors as may be necessary to reach the car that it is desired to load. A bucketed elevator is provided to transfer to the car the grain or corn to be handled, the elevator delivering directly to the receiving trough of a combined sheller and separator, and in connection with this elevator is a conveyor driven by a chain connection and arranged to be passed beneath the flooring of a crib or granary. This elevator is designed to have a capacity of 3,000 bushels per day, while requiring the labor of only four men to operate it.

WHAT THEY SAY.

THE AMERICAN ELEVATOR AND GRAIN TRADE, a monthly journal devoted to the elevator and grain interests, is one of our most valued exchanges. It is published by Mitchell Bros. Company, at Chicago.—*The Commercial, Winnipeg.*

THE AMERICAN ELEVATOR AND GRAIN TRADE is a Chicago monthly journal of great merit. It is full of information of value not only to elevator men, but to dealers in grain. The article on shrinkage of grain delivered at elevators is worth the subscription.—*Toledo Market Report.*

A number of cars of wheat were recently shipped to Duluth from the Pacific coast.

SHIPPING GRAIN IN BOND.

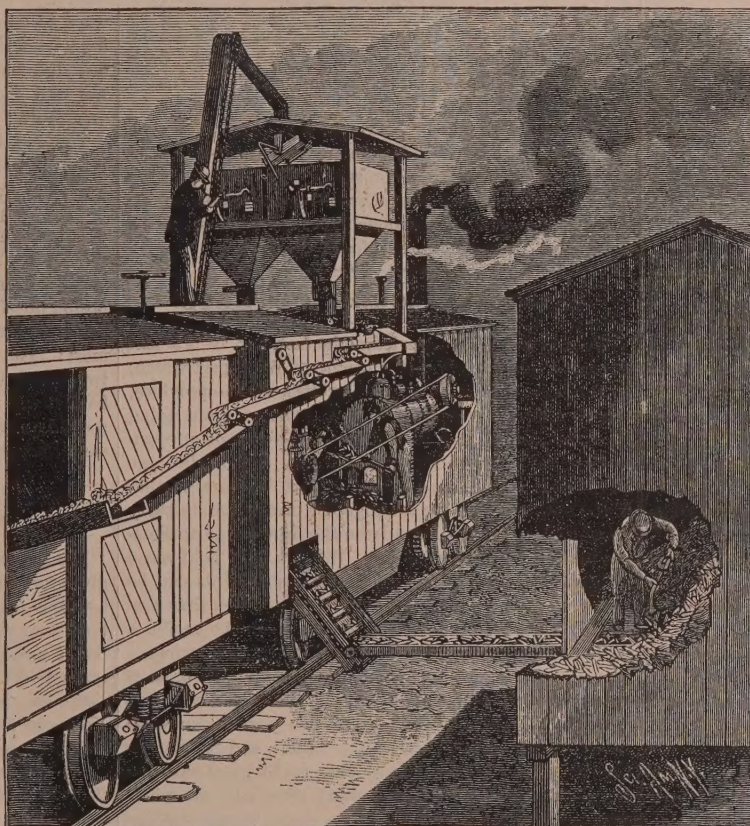
Some time ago a paper was filed with the secretary of the treasury by Messrs. Omar D. Conger and Chilion P. Conger, as counsel, urging the secretary in the exercise of his discretion no longer to permit cars loaded with bonded freight, in transit through Canada to be loaded,

in large quantities from Chicago and the Northwest through Canada shall go by the best and most economical routes, or shall be arbitrarily diverted by the Treasury Department to a less advantageous route, in order to give the merchants, or a single merchant, of Port Huron the opportunity of handling it in transit. In comparison with interests of American citizens in facilitating the transportation of grain between the Northwest and England, the interests of a particular elevator at Port Huron (even including the interests of the American tugboats that might be used in connection with it), sink into insignificance."

The business situation is briefly this: Grain is shipped in large quantities from Chicago in United States vessels to Canadian ports, and thence transported to Canada to the New England seaboard. There are two main routes—one via Port Huron or Sarnia, or Port Edward on the Canadian side of the St. Clair River, opposite Port Huron, the other by way of the Georgian Bay to Collingwood and Midland in Canada. The rail haul east from these latter places is a hundred miles shorter than that from the points on the St. Clair River. Rates have been made by the Grand Trunk Railway, however, with a view of maintaining equality between these two routes, so that the Chicago shipper should have a practical choice between them. And the rail rates for through shipments are at present the same from the St. Clair River as from the Georgian Bay points.

There are several elevators at Port Huron owned by American citizens, and two elevators on the Canadian side owned by the Grand Trunk Railway. For that portion of the grain from Chicago that goes by the St. Clair route, the elevators at Port Huron are in a measure in competition with those owned by the railway company, although the former receive a great deal of local grain not subject to this competition. The facts will not sustain the charge that in this com-

petition the elevators at Port Huron have suffered through any improper or unfair action on the part of the railroad company. Quite the contrary is true. The railroad company's elevators long antedated those at Port Huron, and it is ridiculous to suppose, as is intimated in the petition, that the company placed itself under an obligation, express or implied, to destroy its own property in favor of elevators built by private persons in competition with it. The owners of elevators and merchants of Port Huron, with the exception of Messrs. Congers' clients, are not in sympathy with this attack upon the railroad. The re-



AN IMPROVED ELEVATOR CAR.

bonded, sealed and manifested outside of American ports and in foreign territory, but to revoke the entire system of granting such permits.

W. A. Day, formerly connected with the Treasury Department and familiar with the facts, says: "In regard to the point contended for in the petition, that of the magnitude of the American interests to be affected by the discontinuance of the present system of transportation in bond through Canada—it is perfectly true that these American interests are of great importance, but they are interests not represented by the petitioners. The real question involved is whether the grain that is transported

sult of granting the petition would be not only to remove the United States customs officers at Sarnia and Port Edwards, and so force all the traffic by the St. Clair route into Port Huron, but also to stop all transportation by Georgian Bay, which would ultimately amount to breaking up the entire lake shipping from Chicago, and all this for the purpose of diverting traffic into the elevators of Messrs. Congers' clients at Port Huron.

It is not improbable that the Canadian Government in that event would withdraw their customs officer at Duluth and stop shipments of Canadian grain by that route. In short, the interest of the "large number of American citizens and vast aggregation of American labor and capital" are overwhelmingly on the side of maintaining the present system, which has been in operation since 1873.

INCREASE IN FLAX ACREAGE.

The increase in the acreage of flax in the Northwest, says the *Minneapolis Market Record*, has been the greatest this season of any since farmers began to raise it. The Dakotas and Minnesota on a little under 400,000 acres raised in round numbers 4,000,000 bushels of flaxseed. This year careful inquiry shows the acreage to be nearly twice as much as last year. Allowing the production to equal ten bushels an acre and the result will be 8,000,000 bushels of flaxseed. When it is remembered that the production of the country has averaged only about 9,000,000 bushels, the Northwest increase in acreage and probable production is an important matter. It is the last crop to be planted, usually. Attention was first called to the heavy increase in acreage by the great quantity of seed called for. In all localities where it was grown before, the acreage is reported very much larger. But the greater increase in flax culture this year is in sections that did not raise flax before.

The flax area had been limited mostly to Southern Minnesota and Southeastern Dakota. Farmers then went into flax when the wheat failed for a few seasons. Last year there was a practical wheat failure in Central and North Dakotas and flax has gone into the ground there as it did a few years ago in the southern sections. Flax was above \$1 a bushel last fall when wheat sold for half that—on the farm. The cost to raise either was about the same, as there was but little difference in the yield per acre. It is to be hoped the heavy increase in production will not affect prices unfavorably, though an increase of 45 per cent. on last year's production of the whole country will naturally have that tendency.

SAN FRANCISCO'S GRAIN TRADE.

The annual review of the *Daily Commercial News* of San Francisco gives many interesting facts concerning the grain trade of the Pacific coast, and reminds us of the importance of the grain trade of that section. California is only exceeded by Minnesota as a wheat producer, and Washington and Oregon make a very fair showing.

According to the *News* California produced 1,261,091 tons of wheat in 1889, against 903,796 tons in 1888, 850,651 in 1887, and 1,021,011 in 1886. The crop of 1889 has been exceeded only by the crops of 1880, 1881 and 1883, which amounted to 1,707,500, 1,359,100 and 1,441,540 tons respectively. During the year ending June 30 San Francisco received 564,612 cents of wheat and 319,586 sacks of flour from Oregon.

During the crop year ending June 30 San Francisco received 14,069,590 cents of wheat, 1,786,395 of barley, 131,115 of rye, 380,235 of oats, 31,260 sacks of corn 5,852,778 sacks of flour, and 86,824 tons of hay, against 13,800,149 cents of wheat, 1,267,895 of barley, 30,129 of rye, 539,171 of oats, 59,551 sacks of corn, 4,784,086 sacks of flour, and 118,049 tons of hay for the crop year ending June 30.

The wheat exports for the same time amounted to 13,495,859 cents valued at \$17,783,645, against 13,008,653 cents valued at \$19,491,254 for the crop year of 1888-'89, 8,678,730 cents valued at 13,031,612 for 1887-'88, and 12,005,010 cents valued at \$17,514,004 for the crop year of 1886-'87. Of the wheat exported during the last crop year 5,177,215 cents were shipped to Liverpool, 3,354,436 cents to Cork, and 1,390,446 to Hull.

The corn exports for the last crop year amounted to 52,102 cents valued at \$62,276, against 40,082 cents valued at \$50,398 for the preceding crop year, 74,267 valued at \$99,667 for the crop year of 1887-'88, and 26,450 cents valued at \$32,335 for the crop year 1886-'87.

During the last crop year 52,52' cents of oats valued

at \$70,192 were exported, against 46,752 valued at \$61,689 for the preceding crop year, 26,675 cents valued at \$40,906 for crop year 1887-'88, and 28,128 cents valued at \$43,444 for crop year of 1886-'87.

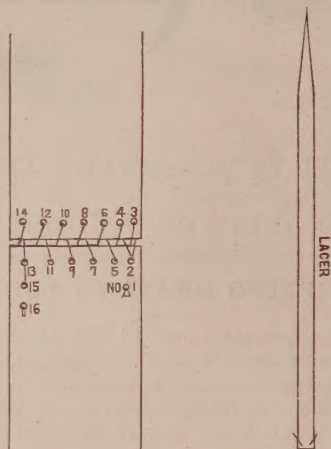
Only one shipment of rye was made during the last crop year, and that was a cargo of 90,009 bushels to Antwerp.

Of barley 813,891 cents valued at \$903,731 were exported.

A HINGE BELT LACE.

BY CUMBERLAND.

I send an illustration of a lace which I have been using for the past three years. I think it is the best I ever saw for large or small pulleys. It being a hinge lace there cannot be any strain on lace or holes in passing around the pulley. Commence at hole No. 1 with the end of the lace outside from the pulley side of the belt, then up through hole No. 2, then between the ends of the belt up through



hole No. 3; then between the ends of the belt up through No. 2; then between ends of the belt up through hole No. 4, and so on across the belt to Nos. 13 and 14. Back through 13, down through 15, and up through 16 to fasten the end.

Care should be taken to draw the laces taut and even all the way across. This is the most lasting lace I have ever found, as there are no crossings of the laces to wear off. It will be seen that there is one more hole on one side than the other. Commence lacing and finish on the same side. Knot the laces to fasten the end.

MANITOBA CROP OUTLETS.

We may as well acknowledge the fact, for it is a fact beyond dispute, says the *Commercial* of Winnipeg, which, by the way, is the best journal published in the province, that to relieve this country of a pressure of grain going to market, the C. P. R. is still the only outlet of any material value. Since 1887 that company has made large additions to its storage capacity at Fort William, so that if the north shore route is altogether insufficient to carry enough of our grain direct from the province to an Eastern market, the storage at Fort William will hold some millions of bushels, on which elevator receipts can be issued, and the financial pressure of a block thus materially relieved. But even in this respect the facilities will fall short of actual wants should the present growing crop come to market free from any damage. Look at it therefore as we will, there is trouble ahead in connection with the marketing of our grain this year if our yield turns out anything like what it promises, and the time is now too short to allow of any changes of great value to be made. But with only the short time still available, temporary arrangements might be made by railway the companies interested, which would to some extent mitigate the threatened trouble. It is to be hoped that such preparations as can be, will be made, for even railway managers can have no desire for a repetition of the block troubles of 1887-8.

We sound this note of warning in hopes that some temporary improvement will be made in our grain exporting facilities. With the rapid increase in Northwestern grain production, even the addition of one or two new roads to the East would be only a temporary relief, for such roads can only devote a portion of their facilities to this country. A full measure of relief can only come when we get the Hudson's Bay outlet, and we have a route to Europe for our exports alone.

THE WHEAT TESTER.

The *Farmers' Review* received the following inquiry from a farmer near Pleasant Lake, Ind: We would like to know, through your paper, what the farmers think about the wheat tester. Is it in use all over the United States at the depots and exchange mills? With us it is a new thing, just put in this last winter, and there is a great deal of complaint among the farmers here, as the tester holds only four pounds, or one-fifteenth of a bushel, and is made round and deep. So we claim it is not a fair test. Now, a bushel contains 2150.4 cubic inches. If the tester held that much it would be a fair test. But fill a small vessel with large potatoes and weigh them, and then fill the same vessel with small ones, and the small ones will weigh the most. The same principle holds good with wheat. Large berried wheat put in a small can will not weigh as much as the small berried; but sixty pounds of the large berried will make as much, if not more, flour than the small berried. But with the tester the large berried will go for No. 2, and the small for No. 1.

Relative to the communication, Mr. C. C. Warren of the firm of N. H. Warren & Co., said: "Your correspondent does not mean the wheat tester, but the scales in which the wheat is weighed; for the former is used only to extract a sample from the car or wagonload, and can have no bearing on the quality of the wheat. These scales are no new invention, but have been in use for twenty-five years, and that not in one locality only, but in the entire country. I regard it as a perfectly fair test, and one that can injure neither the buyer nor the seller. Farmers often come to market with a firmly-fixed idea that their wheat is of a certain grade, and are sometimes disappointed that the buyer will not take the grain on their word, but resorts to the tester. It is not at all a common occurrence that small berried wheat goes for No. 1 and large berried for No. 2, but the reverse is the rule. The example of the potatoes, if true, will not hold good in regard to wheat, for the large berried wheat is more solid and better in every way than the small, and is always preferable. Nothing would be gained by weighing a whole bushel instead of four pounds. There would be a difference, of course, if the small grained wheat were wet and the large dry, but that would be the farmer's own fault."

The inquiry was also forwarded to Prof. J. W. Sanborn, Director of the Utah Experiment Station, who replied as follows:

"Mr. Harpham, I think, is in error. If the small sized wheat weighs more in a large measure for the reason assigned, so it will in a small one. The large and small wheat will have varying densities of kernels. But, supposing density to be the same, which I suppose is not the case, then the question arises, which would weigh the most? The large wheat will have larger interspaces between the kernels than the small wheat. On the other hand it will not have as many of them. It is similar to the old question, Which will weigh the most, a quart of small shot or a quart of large shot?"

BUCKWHEAT.

The buckwheat crop, says the *Western Cultivator*, is given less attention than any other farm crop. It is less commonly grown than any other grain crop, and yet there are over 872,000 acres devoted to it in the United States each year. On this area over 11,000,000 bushels of grain worth \$7,000,000 are produced. Two-thirds of the entire buckwheat crop of the country is grown in New York and Pennsylvania. The average yield per acre is a little over twelve bushels, with a value of a little over eight dollars per acre. From these figures it will be seen that the buckwheat crop is neither large nor valuable by comparison with the other cereal crops which run up into the hundreds of millions of dollars per annum. But it is still true that the crop is grown in twenty-five states and territories of this country, and is entitled to some consideration elsewhere than at a winter's breakfast table.

The highest average yield of buckwheat is in the New England states, Michigan, Minnesota and Oregon. There is little choice of varieties of seed. Till recently only two varieties were grown in this country, and even now many prominent seedsmen catalogue only one variety, the European Silver Hull. The common black buckwheat is still generally grown, but a new variety from Japan is being introduced, and is found to be much more productive than the old varieties.

KING CORN'S PALACE AT SIOUX CITY, IOWA.

More than twice as large as any of its predecessors, different in design and scope from anything ever before conceived, the Corn Palace of 1890 will be not merely a thing of beauty, but it will be a wonder, even to the people of Sioux City. The strongest argument that any one ever used against the perpetuation of this great festival was the fear that it might grow old, might get monotonous, and fail to attract the necessary crowds, because there were no people left who hadn't seen it. That was on the theory that all corn palaces are alike. But no one has ever seen the like of what the Corn Palace of 1890 is to be.

To begin with, the Corn Palace of 1890 is to be 264 feet square, or more than twice as large as last year's palace, which was 120x240. It will cover nearly the whole of the block cornering on last year's location. The central building will run up to the imposing height of 172 feet, the upper 100 feet being a dome. This main building will be in the form of an octagon, 166 feet across. In the center will be an open space 78 feet across, without a post or anything to interfere with a view of the whole interior decorations. This space will run up 65 feet, with an artistically painted sky at the top, studded with stars made of incandescent electric light.

The gallery in this palace will be clear around the interior of the rotunda, 44 feet high, and will be 25 feet wide. Dispensing with the high gallery feature will be good news to nervous people, for it will entirely remove the danger that has been felt before from crowding them, for everybody wanted to get as high as possible. This gallery will give every one an opportunity to see all there is to be seen, and it will be adorned with various exhibits as well as overlooking all the rest of the palace. Five wide stairways leading to the gallery will remove all chance for a jam.

East of the main building, opening into it by two gates, will be an auditorium to seat 1,000 to 1,300 people. The band stand will be between this and the rotunda, so that the music may be heard by every one in the palace, while those who desire can rest and listen to the music undisturbed by tramping feet. A sounding board will be erected above the band stand to throw the sound into the auditorium. This building will be about 40 feet high. In front, covering the whole, will be a wall 40 feet high, giving the whole the appearance of a solid building.

At the north of the main building will be another lower structure running back 100 feet. This building will run around back of the main building to connect with the auditorium, and will be 100 feet deep clear around, roofed and concealed by a battlement. All this ground will be removed and the space used by exhibits of all kinds, and some special features that, as entirely new, will delight and astonish those who have seen all previous corn palaces no less than those who have never seen one. There will be grottoes, beautiful and original ideas worked out in corn and showing the wealth of the great agricultural Northwest as well as the ingenuity and artistic taste of her people. One of the wonders in preparation is a miniature Niagara Falls, located so that it will be the first thing to greet the eye of the spectator as he enters the building. Here he will look down to the farthest part of the great structure, 272 feet from the main entrance, with an uninterrupted view 48 feet wide and 44 feet high. The space of one side of the octagon, 48 feet, which is the entrance to the back part of the palace, will be crossed at the gallery floor by a rustic bridge, from which all parts of the palace may be seen. The decorations this year, both interior and exterior, will be projected on a scale grander and more elaborate than ever before.

At the county convention of the Clay County (Minn.) Republicans it was resolved that "We demand the reduction of the existing freight rates on the transportation of wheat and other grain from Red River points to Lake Superior points 20 per cent. to take effect on the crop of 1890."

GRAIN MARKETING IN THE NORTHWEST.

State Grain Inspector Claussen occupies a position from which he is able to speak with some authority on the subject of grain marketing, and he was, therefore, interviewed on the proposed abolishment of country grading, and in lieu thereof the purchase of grain by sample upon its merits. This plan is not a new one, but has been revived recently. When asked as to his personal views, Mr. Claussen said:

"I have heard the matter discussed for several months. It was first brought up at the spring meeting of the State Farmers' Alliance in an informal way. Of course grain handling in the Northwest is a somewhat different matter than in older states. Farmers market their wheat largely from the shock and stack in this part of the country, while in older states it is threshed and hauled to the granary and disposed of gradually through the whole season. The lack of granaries in the Northwest in the past, has compelled farmers to use the local warehouses for storage, and some sort of grading or classification has been necessary, as the warehouses are not constructed so as to afford separate bins for the grain of each customer. If a farmer in all cases desired to sell his

on their part or the part of the elevator companies who employ them.

"There has been a very large increase in this class of shipments this year over any previous season. Many would have availed themselves of the right of shipment under the law, but for the inability of railroad companies to supply the cars during the busy season. This will always be the trouble as long as the attempt is made to market one-half the crop in sixty days. I see that proper credit is given to Gov. Merriam for his unceasing efforts to aid the railroad and warehouse commission in securing cars for individual shippers. The governor has always manifested an active interest in all matters pertaining to this department, and the credit given him is very properly bestowed."

"How would the elevator companies regard this proposed departure from the usual methods?"

"Oh, they don't care how it is done, as long as everybody is satisfied. I have discussed the matter with several elevator men, notably the Northwestern Elevator Company, who are liberal and progressive in their methods, and they expressed themselves as perfectly in accord with the new movement, and saw no reason why it would not be successful. They expect to do business in this manner in North Dakota the coming season, as the laws of that state regarding elevators are so prohibitory in their nature that they can do business in no other way."

FLAX CULTIVATION IN RUSSIA.

In an article on the subject of flax growing in Russia, which appeared in the *Journal* of St. Petersburg recently, it is stated that years ago the cultivation of flax was almost non-existent in the province of Smolensk. In the district of Viazma attempts at its cultivation have been crowned with success. Areas hitherto have been rendered productive, and the net revenue mounted to 100 roubles per deciatine. (Deciatine equals 2.7 acres.) The example set by the landed proprietors was followed by the peasants, and the cultivation of flax was not long in establishing itself in five districts of the Government of Smolensk. At the present time this cultivation has become in many properties the center of agricultural industry.

The culture of flax is generally regarded as injurious to the soil; but at Smolensk, on the contrary, it has resulted in a decided progress in the method of culture. Alternating with hay and cereals, flax returns to the same place every seven or eight years, and does not consequently cause any injury to the soil. The growth of grass has also resulted in a large increase in the rearing of cattle, so that in the five districts above mentioned an important increase of horned cattle is noticed. The average of the crops has also increased.

Of late years, however, the culture of flax has become less profitable by reason of the fall in prices. The fault lies in the primitive mode of culture and Russian commercial practices. The principal zemstvo of Smolensk seems to be convinced of this, for it has resolved to change this condition of affairs. In the first place, it has decided on the foundation of schools for flax culture, as well as the teaching of the best methods of that culture in the seminaries of the five districts in question. Lastly, agricultural stations will be established where the surrounding population will be able to see the application of the most approved methods of the cultivation of flax.

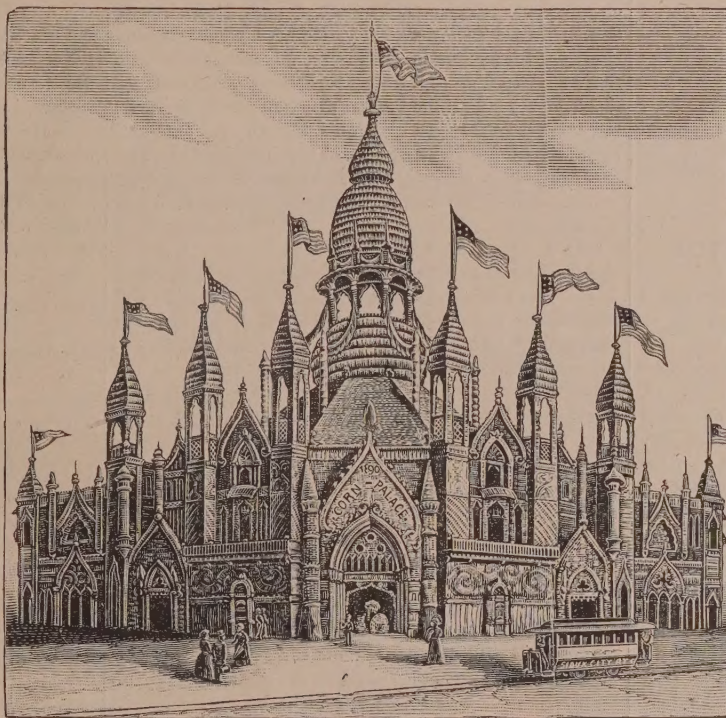
AN EXCELLENT CORN MARKET.

Several gentlemen from different states were discussing the merits of their particular homes.

"Kansas is a great state. We raise sixty bushels of corn," said a man from Kansas, "and 200 bushels of potatoes to the acre."

"But have you Kansas people any market for your produce?" asked a man from Connecticut.

"Certainly they have," responded an envious Texan. "They raise enough grasshoppers and potato bugs to eat up ten times the corn and potatoes they can raise."



Sioux City Corn Palace.—Opens Sept. 25; closes Oct. 11, 1890.

wheat when he hauled it in, I know of no reason why the plan of buying by sample would not be perfectly practicable. The farmers of Minnesota are no doubt well fixed in the matter of granaries, but not so well in Dakota. There is no question as to the wisdom and profit of the course suggested by you. When grain is placed in warehouses it immediately figures in the visible supply, thus constantly depressing prices. Again, if the grain is stored in the fall and the warehouse receipts are deposited in the local bank as collateral security for what money is needed—and there are thousands of instances of this kind every fall—it takes a rise in prices of at least ten cents per bushel in the spring before any profit can accrue from the transaction, as the cost of elevator handling and storage, and the interest on the loan would at least net the figure stated. If a business man should engage in such a transaction he would be deemed a mighty poor financier.

"The storage question out of the way, there would be no difficulty in the proposed plan. Country buyers would then be governed by the standard of grades at terminal points, the farmer who raised a gilt-edged quality of wheat would get a premium over the one who raised the poorest quality of the same grade, and grain generally would be bought more in accordance with its merits than under any grading system. It would necessitate the employment of thoroughly experienced buyers. There has always been trouble and discontent in the country about inspection, but it crops out more in localities, and is caused more by fear, anxiety and ignorance on the part of inexperienced country inspectors, in my opinion, than through any intentional injustice

CINCINNATI BOOMS HER GRAIN TRADE.

Cincinnati, says the St. Louis correspondent of the *Northwestern Miller*, not so very many years ago, was quite a large receiving point for wheat, and controlled largely the crops of Southern Indiana, Southern Ohio, Kentucky and Tennessee, but of late years her glory in the wheat line has departed, and she has handled little, if any, more than was necessary to supply her local mills. This year her merchants decided to make a supreme effort, and it has turned out very disastrously. They sent out through Kentucky and Tennessee cords of trade papers and thousands of circulars, letters and telegrams, showing that No. 2 red was selling at 90¢ in their market, while only 84¢ was being paid for the same grade in St. Louis on that day. The consequences were, as might have been expected, that thousands of bushels intended for St. Louis, lots of which was already billed out to this city, were diverted to Porkopolis, where it began to arrive a week ago. The quantity to them looked like an avalanche, but it would have had no appreciable effect here. There was no future buying there unless the buyers saw a large margin of profit besides the legitimate carrying charges, so the cream wheat of those states was offered at 85¢ when at the same moment it was in active request in the St. Louis market at 89¢. The farmers and dealers who were misled are kicking themselves, and very many of them who were more than friendly to Cincinnati will give that city the cold shoulder. The merchants there will have an unenviable time for months to come in explaining the "wherefore of the which," and their effort to boom their business at the expense of their neighboring states.

A WILD DOG IN AN ELEVATOR.

A desperate fight between a wild shepherd dog and a colored stevedore in the Indiana Elevator, Chicago, on the dock and in the river, took place recently.

Two years ago the dog, a mild-mannered tramp, came to the elevator, and has made his home since in the recesses of the huge structure, picking up his living as best he could. In his solitude the tramp lost the air of a persecuted and much kicked canine, and returned to the original wild dog state, all the veneer of generations among mankind being scratched off. All this season he has roamed over the elevator, alert at the approach of man and quick to make his escape. Cornered once or twice, his would-be captors gave up the contest and scampered when they saw he would fight to the death. Becoming a nuisance and a terror to the unarmed employees; Patrick Canfield, foreman of the elevator, offered a reward of \$25 to any one who would capture the dog.

"Tom" Davis, a colored stevedore, got the dog cornered recently, and determined to earn the reward. Then began a desperate fight. Davis with a club kept the infuriated animal from seizing him, and gradually drove the dog to the dock, where there was a large gang of men to aid in the capture. Once on the dock the dog succeeded in breaking through Davis' guard, and fastened his teeth on the colored man's throat. Before others could assist him man and dog rolled into the river. The dog then let go his hold, and Davis continued to fight with his club. He finally succeeded in giving a blow that stunned the brute, and both were fished out. The dog was then put in an improvised cage, and came to after a time. Davis was badly hurt, but he had well earned \$25.

GRAIN TRADE IN SOUTHERN RUSSIA.

The Southwestern Railway Company of Russia has just issued the annual report on the working of the commercial agencies established in Odessa and Königsberg. As regards the Odessa branch, there remained in store unsold from the year 1888, 2,141,609 poods, and during the year 1889 the company received for disposal 1,650,405 poods of grain—together 3,792,014 poods. Of this quantity the railway company sold to Dec. 31, 1889, 2,924,495 poods, the quantity unsold and stored being 867,519 poods. The greatest quantity of grain came over the lines serving the Bessarabian districts, the lines serving the Elisabethgrad districts coming next in the importance of the grain traffic. In the year 1889 the Southwestern Railway Company advanced 3,011,654 roubles to different persons upon grain forwarded for disposal. The best prices obtained were for the wheat coming from the Fastoff, Berdicheff,

Kieff and Brest districts. As to the length of time during which the grain was stored, the average was found to be 5 1-3 months, while in 1888 the average was only 2½ months, showing that there was in the latter year a greater demand for Russian wheat. The cost of storage was .65 cope ks, or about .3627 cents in United States money, per pood per month. A pood is 36.104 avoirdupois pounds. The year 1889 was the year of the opening of the Königsberg branch; 350,000 poods were sent thither for disposal. The financial results of these commercial agencies are considered to be very satisfactory.

BUTTERWORTH'S UNIFORM GRADING BILL.

Congressman Butterworth's bill for fixing a uniform standard of classification and grading of wheat, corn, oats, barley and rye provides: That the Secretary of Agriculture be and he is hereby, authorized and required, as soon as may be after the enactment hereof, to determine and fix, according to such standard as he may prescribe, such classification and grading of wheat, corn, rye, oats and barley as in his judgment the usages of trade warrant and permit, having reference to the standard, classification and grades now recognized by the several chambers of commerce and boards of trade of the United States; Provided, however, that reference to such various classifications and grades shall serve only as a guide and suggestion in the matter of determining and fixing, by the Secretary, the United States standard herein provided for, but he shall not be controlled thereby, but shall determine and fix such standard and such classifications and grades as will in his judgment best subserve the interest of the public in the conduct of inter-state trade and commerce in grain.

SEC. 2. That when such standard is fixed and the classification and grades determined upon, the same shall be made matter of permanent record in the Agricultural Department, and public notice thereof shall be given in such manner as the Secretary shall direct, and thereafter such classifications and grades shall be known as the United States standard. All persons interested shall have access to said record at such convenient times and under such reasonable regulations as the Secretary may prescribe; and on payment of such proper charge as the Secretary may fix, a certified copy of the classification and grades shall be supplied to those who may apply for the same.

SEC. 3. That from and after thirty days after such classifications and grades have been determined upon and fixed, and duly placed on record as herein provided, such classification and grading shall be taken and held to be the standard in all inter-state trade and commerce in grain in all cases when no other standard is agreed upon.

FLAX IN THE NORTHWEST.

Reports from North Dakota state that the cutworms are doing an unusual amount of damage to the growing flax. They are reported as working havoc in nearly every field. They are found in bunches or hives every few rods. In number and destructive capacity they far exceed anything ever known before. They cut down all the stems of the flax in large patches. Farmers find the pest an unusually difficult one to deal with. If the damage proceeds at the present rate one-half of the crop will be destroyed. Dickey county has 30,000 acres of flax this season. The total yield in the two Dakotas last year was 3,500,000 bushels, worth \$4,000,000. There is a slight increase in the acreage this year, and with favorable circumstances a very profitable crop will be raised. Much of the flax raised in North and South Dakota is disposed of in Chicago. The crop is becoming more important each year. It is nearly always raised on new land, and is one of the best subduers of soil that can be sown on the sod, and while the yield is generally smaller than that of wheat, the price more than makes up for this deficiency. A flax crop of ten bushels per acre is considered profitable. The price has averaged about \$1 per bushel during the past five years, and the average yield per acre during the same period was about eight bushels. There was an average of nine bushels on 400,000 acres two years ago, and the Dakotas now produce nearly one-half of the entire flax crop of the United States.

Forest City, Iowa, is to have a flax palace. It is now nearly completed, and will be opened early in September. It is claimed that it will be a very artistic affair.

THE STANDARD GRADES OF MISSOURI.

The Missouri State Grain Inspection Department commenced to grade grain July 28 by the new standards adopted recently. In inspecting wheat hereafter the weight test will be applied.

The official description of the new grades of wheat adopted is as follows:

No. 1 Red—To be bright, sound, plump, dry and well cleaned red, or red and white mixed winter wheat. If mixed, must not contain over one eighth white wheat and weighing not less than 61 pounds to the measured bushel.

No. 2 Red—To be sound, well cleaned, dry red, or red and white mixed winter wheat. If mixed must not contain over one-eighth white wheat and weighing not less than 59 pounds to the measured bushel.

No. 3 Red—To be sound, reasonably cleaned red, or red and white mixed winter wheat below No. 2 red, weighing not less than 57 pounds to the measured bushel.

No. 4 Winter—To be red, white or mixed, thin or bleached winter wheat, reasonably sound, and unfit to grade No. 3 red.

No. 1—To be sound, dry and clean hard winter wheat, and to weigh not less than 60 pounds to the bushel.

No. 2—To be sound and reasonably clean hard winter wheat, and to weigh not less than 58 pounds to the bushel.

No. 3—To be sound and reasonably clean hard winter wheat, and to weigh not less than 55 pounds to the bushel.

No. 4—To be reasonably sound, thin or bleached hard winter wheat, unfit to grade No. 3 hard.

OATS.

No. 1 Oats—Shall be mixed oats, sound, clean and free from other grain.

No. 2 Oats—Shall be mixed oats, sweet, reasonably clean and reasonably free from other grain.

No. 3 Oats—Shall be mixed oats that are slightly damp, unsound, slightly musty, dirty or from any other cause unfit to grade No. 2.

No. 1 White Oats—Shall be pure white, sound, clean and free from other grain.

No. 2 White Oats—Shall be ¾ white, sound, reasonably clean and reasonably free from other grain.

No. 3 White Oats—Shall be ½ white, but not sufficiently sound and clean for No. 2.

CORN.

No. 2 Yellow—Shall be three-fourths yellow, sound, dry and reasonably clean.

No. 3 Yellow—Shall be three-fourths yellow, reasonably dry and reasonably clean, but not sound enough for No. 2 yellow.

NEW GRADES ESTABLISHED—CORN.

No. 1 St. Charles White—Shall be St. Charles white corn of choice quality, sound, dry and well cleaned.

No. 1 Yellow—Shall be pure yellow corn, sound, dry and well cleaned.

No. 4 White—Shall be 15-16 white, not wet or in a heating condition, and unfit to grade No. 3 white.

No. 2 Corn "Color"—Shall be ¾ white and in condition same as No. 2 corn.

No. 3 Corn "Color"—Shall be ¾ white and in condition same as No. 3 corn.

No. 1 Corn—Shall be mixed corn of choice quality, sound, dry and well cleaned.

OATS.

No. 4 Oats—Shall be mixed oats, not wet or in a heating condition, or from any other cause unfit to grade No. 3.

No. 4 White Oats—Shall be ¾ white, not wet or in a heating condition, badly stained, or from any other cause unfit to grade No. 3 white.

No. 2 Oats "Color"—Shall be ¾ white, and in condition the same as No. 2 oats.

No. 3 Oats "Color"—Shall be ¾ white, and in condition the same as No. 3 oats.

RYE.

No. 4—To include all badly damaged, very dirty and very thin rye unfit to grade No. 3.

The Merchants' Exchange of St. Louis has also adopted these grades, so grain will be graded by these grades in East St. Louis as well as in Missouri.

THE NEW WORKS OF THE MAIN BELTING COMPANY AT PHILADELPHIA, U. S. A.

The handsome works shown on this page are the new quarters of the Main Belting Company, into which they have lately moved, and which mark the prosperity of a concern manufacturing an excellent article and pursuing strict business methods. The company commenced the manufacture of "Leviathan" Belting in 1881, and since that time the demand has been so large and steadily increasing that a year and a half ago they purchased the ground, and now have completed and occupied the handsome factory pictured herewith.

It is located at 1219-1235 Carpenter street, Philadelphia, and is in all respects a first class and model manufactur-

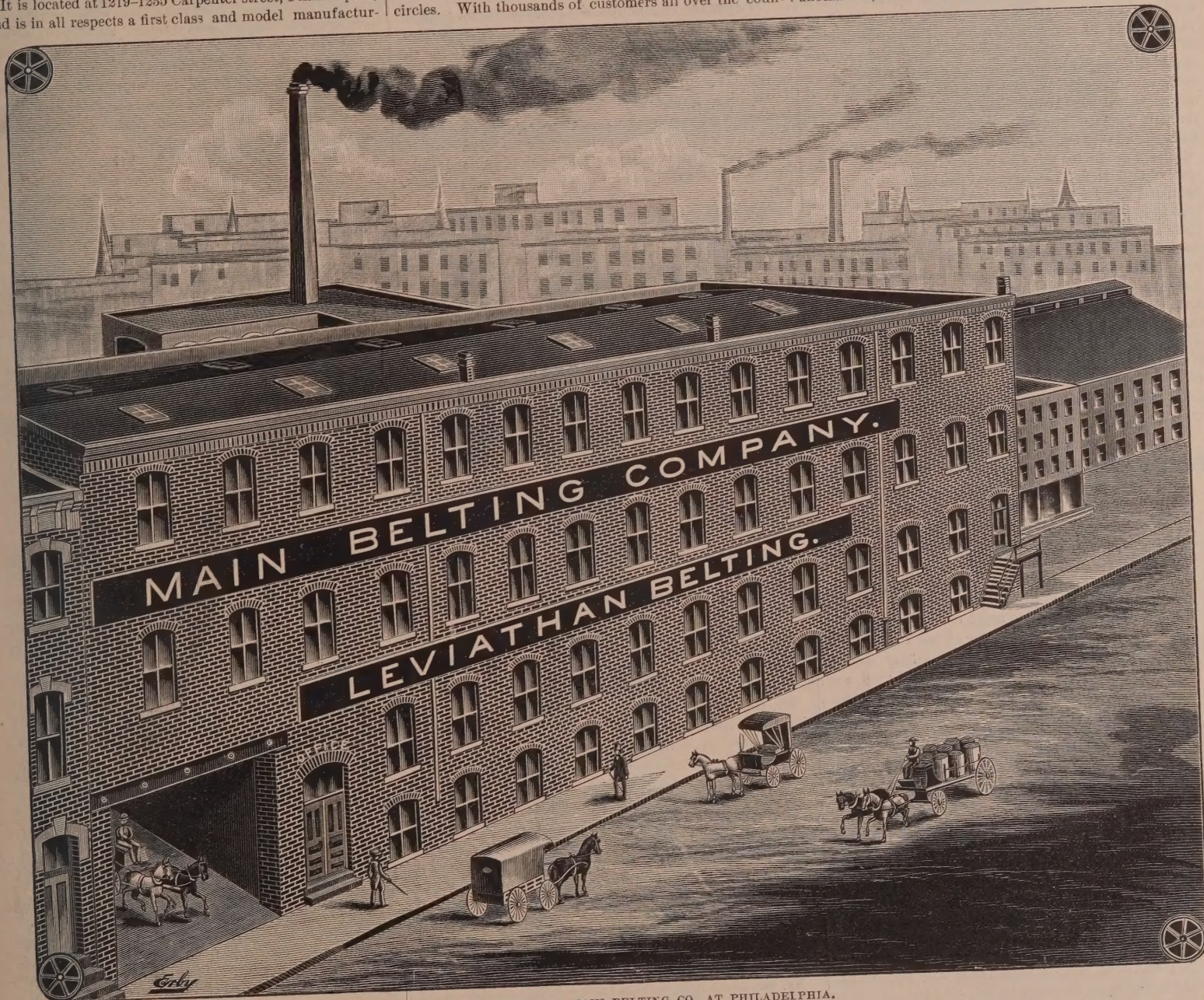
propriate, and will explain the chief reason of the success that has attended its operations. The Leviathan Belting is specially suited for work of a heavy nature, and is prepared by a process that renders it proof against heat, water or gases. It is of great strength and durability, and a special feature of it is that it does not commence wearing out at the start, but grows better, for the reason that a deposit forms on the pulley side of the belt, not only protecting the belt, but adding to its already great traction power, so that the belt is really better when a year old than when started. This is a novel feature, and one that users appreciate, as shown by the thousands of Main Driving Belts that are in constant use.

The MAIN BELTING COMPANY at 248 Randolph street, Chicago, is a name already familiar in manufacturing circles. With thousands of customers all over the coun-

SACKED WHEAT AT ST. LOUIS.

It is not generally understood, writes the St. Louis correspondent of the *Northwestern Miller*, how large a part of the wheat receipts of this market is composed of that which arrives here in sacks. Of last year's receipts (13,810,591 bushels) 804,463 bushels were received by railroad, 962,311 bushels by river, and 752,600 bushels by wagons from contiguous counties in sacks—in all over 2,500,000 bushels, and few understand what stress is put on the shipment of sacks from our commission houses to farmers, by our city millers and operators in wheat operations.

To the Northern miller with elevators at every little station in his territory, this sack business must seem anomalous, but in this part of the country it is an ab-



NEW WORKS OF THE MAIN BELTING CO. AT PHILADELPHIA.

ing building. It has a frontage of 145 feet, and is four stories high. The materials used in its construction are pressed brick and brownstone. The interior is finished throughout in Georgia pine, while the fine office rooms are finished in mahogany and Georgia pine. The engine room and boiler house are both separate buildings, and in fact nothing has been left undone to make the establishment complete and perfect in all its details, and with more than double the capacity of their former works.

One thing that has contributed in no small degree to the success of the Main Belting Company is the character of the machinery they employ, which is always the best to be had, and constantly improved by their own devices. This has proved a winning policy, and enabled them always to turn out a high grade of goods, uniform in quality and eminently satisfactory to the public.

A word or two in this connection respecting the specialty of the Main Belting Company may not be inap-

try and orders coming in from all parts of the world where industrial establishments are found, the position of the "Leviathan" and its manufacturers is secure.

IMPORTS OF BREADSTUFFS.

During the month of June the United States imported breadstuffs valued at \$88,202, against \$109,229 for June, 1889, and during the crop year ending with June we imported breadstuffs valued at \$6,034,272, against \$8,029,729 for the crop year ending June 30, 1889.

The exports for the last crop year included 11,332,545 bushels of barley, 1,626 bushels of corn, 21,436 of oats, 197,598 of rye and 157,060 bushels of wheat, against 11,368,414 of barley, 2,401 of corn, 22,310 of oats, 16 of rye and 130,649 of wheat for the crop year ending June 30, 1889.

solute necessity. Along the rivers, creeks and bayous in a very large section of country they have no means of reaching a railroad, and have to depend for transportation on the light draft steamboats that ply once or twice a week between their habitat and their metropolis—St. Louis. The two large tag houses here tell me that they have sold less, but have rented more bags than they did last year. Their mode of renting is this: They assort their bags, and value them, according to looks and "previous condition of servitude," at from 13 to 21 cents each—I am speaking of last year, when I used a great many, but this year I am confident a similar state of affairs exists—and the rental is 2 cents each per month; the value is stated on the contract, and a further proviso made that should the user elect to purchase the bags at any time, one-half of the rental would be credited on the purchase. On some 25 per cent. of those the Regina Mill sent out 10 cents for bag rental accumulated, as their

German constituents declined to accept current prices, and when the situation was explained to them, and that a 16 cent bag (the average value of those sent to them), could become their own at a price equal to 11 cents each, they took them, and now are independent, so far as sacks are concerned, of commission merchant or mill.

EFFECT OF THE PROPOSED DUTY ON BARLEY.

There is usually very little demand for barley at this time of the year, as the weather becomes too warm to permit malting. This season, however, the demand continued beyond the usual period. Recently it improved, and at the moment it is as active and the market is firmer than at any time during the season. Prices have advanced 5 to 10 cents per bushel. This unusual state of the market is the result of the proposal of the United States Congress to increase the duty on Canadian barley going into that country from 10 cents per bushel to 30 cents. It was believed by many Canadian dealers and farmers that the proposed increase would have been adopted before now. Seeing lower prices and consequent decreased profits for this year's crop, many of the farmers reduced their acreage very materially. It is now estimated that the amount of land under barley this year is 25 to 33½ per cent. below the average. The export trade has not suspended as usual, but has continued, although it is entirely on speculative account, being done by dealers who look for an advance in the prices on the American market as soon as the duty is increased. This demand has absorbed all the round lots offered in Ontario, and has taken all that the farmers would offer at advancing prices. The market is now pretty well cleared up, so that the new crop will come upon the barest market in many years. It may be added that the new crop promises to be an excellent one; everything, however, depends upon the next few weeks.—*Empire, Toronto.*

THE FARMERS LOST (?) ON CORN.

The latest issue of *Field and Farm* says: "Corn has been king, but when the farmers of Illinois lose ten million dollars on the crop, as they did last year, corn is king with his scepter badly broken." This is an instance of a big error being accepted as equal to truth while its official correctness is ignored. The statement that the farmers of Illinois had lost so much on their corn crop of 1889 was published toward the close of last winter. But the estimate was based on the supposition that the low prices of December would rule on the whole crop, and that the cost of corn culture was a certain sum per acre. The statistician subsequently admitted that the latter was placed much too high, the estimate having been based upon the unrevised figures of several years ago, and the first supposition has long since been shown to be at fault, the price of corn in this market having risen more than 50 per cent. from the quotation which obtained seven months ago. Probably the farmers of this state never have lost a considerable percentage of the sum stated on a single crop. Certainly they did not on the one grown last year. On the contrary they have seldom done better with their corn, except those of their number who rushed in during the winter as sellers and helped those of the states further west to produce the unusual depression that would not have occurred but for the fact that the property was flung in upon buyers at a rate which far exceeded the ability of the latter to get rid of it. Corn is still king.—*Chicago Tribune.*

SOME OF THE REASONS WHY.

A Canadian exchange gives the following as a few of the reasons why those connected with any line of business should read the journal published in its interest:

First—It elevates his conception of the work in which he is engaged.

Second—It brings him into mental contact with others engaged in the same work where personal contact is impossible.

Third—It contains words of sympathy and encouragement for him in grappling with difficulties as they appear from day to day.

Fourth—It inspires him with renewed pluck and energy, by showing how others are overcoming obstacles.

Fifth—It often pays for itself by the information contained in a single paragraph

THE STORAGE CONTROVERSY IS SETTLED.

On the afternoon of Aug. 4 another general meeting of the members of the Chicago Board of Trade was held, in hope of securing some agreement between the Board and the elevator men.

C. L. Raymond, in offering a motion, explained that under the laws of the state the warehousemen were only governed by the statutes. He deprecated the demand for a bond which he denounced as unjust in obligating the sureties to be responsible for any violation of rules that were liable to be changed at any time at the whim of a board of directors. He then read the following:

"WHEREAS, The present disagreement between the directors of the Board and the grain warehousemen regarding regular storage is causing great disturbance in the grain trade, and should be adjusted at once on a fair and equitable basis; and

"WHEREAS, The rates for storing grain by said warehousemen are regulated by the laws of Illinois, and this Board has no jurisdiction in the matter in other respects except as regards receipts for said grain being regular delivery on sales made under the rules of this board; therefore,

"Resolved, That the directors be requested not to require any warehousemen to furnish bonds to comply with the rules of this Board other than as said rules existed at the time of the filing of said bond, and that warehousemen be requested to make storage rates on grain ¼ cent per bushel for the first ten days and ⅜ cent per bushel for each ten days thereafter, and that all warehousemen who have collected storage in excess of ¼ and ⅜ cent since July 1, 1890, be requested to refund said excess to the payer thereof.

"Resolved, That on compliance by said warehousemen with these terms, and in conformity with requirements of other rules of this Board, then said houses shall be made regular."

George M. How strenuously opposed any increase in the rate of storage from ¼ to ⅜ of a cent, aggregating 4¼ cents per bushel per annum, when last year every one knew they had to offer inducements in the way of a rebate to bring shipments to Chicago. Now, in the face of short crops, he deemed it suicidal to advance storage rates. These views, he remarked, were the views of receivers.

William Dunn thought the trade was being salted by the elevators, as shown by exorbitant profits divided annually among the warehousemen. Let Chicago go on as it is and it would soon become a way station.

Mr. How offered the following as a substitute for the preceding resolution:

"Resolved, That we hereby ratify and confirm the amendments to elevator requirements adopted by the Board of Directors June 25, 1890."

Mr. B. Fowler added his protest against any advance. He had been connected with the grain business since 1846, and acknowledged many reductions in that time. Nevertheless, elevator men have not suffered as much as commission men. Grain was being diverted and passing around Chicago. He had anticipated the present trouble, and recently sold out all his elevator stock and transferred his business to the Missouri River. Out of 3,000,000 bushels shipped out of one of his small elevators only two carloads came to Chicago.

Mr. Raymond thought that the previous speaker was behind the times. He himself had brought last year over 4,000,000 bushels from along the line of the Alton. Prevention was better than cure, and as all the railways were looking after the long haul by going around Chicago, it behooved them to get to work, and, by sending buyers out, to attract grain. "The present meeting," said Mr. Raymond, glancing around and emphasizing his remarks with a comprehensive sweep of his right hand, "represents only 15 per cent. of the membership. Eighty-five per cent. care nothing for the discussion." The warehousemen alone were taking any interest in the grain trade. It was to the advantage of the elevators to draw grain to Chicago so as to keep their houses full.

W. W. Catlin said they knew there were contracts outstanding for millions of bushels deliverable after Sept. 1. Every elevator was said to be doing irregular business. Anyway there was a cloud on every receipt that would last as long as the controversy. There should be a compromise. There must be if they wished to avoid chaos the 1st of September. Let the Board back down, and he

was satisfied that a majority of members would approve its action.

By request of the members, President Baker resigned the chair to Mr. Bailey and took the floor. He declared there was no occasion for the attempted bear panic. Happily for September contracts, their regularity was not dependent upon Mr. Raymond or Mr. Nelson. Grain could be transferred from irregular to regular elevators, so that contracts could be filled. The president explained how the directors had been importuned by members to secure lower rates of storage. He contended that the directors are vested with full power to regulate warehouses. The elevators are controlled by corporations headed by such men as Jay Gould, Russell Sage, and English syndicates. There was a time when warehouses were owned in Chicago, and shippers could easily adjust disputes, but now there were only agents, who exacted the highest rates necessary to the payment of high dividends. They were inimical to Chicago trade, and had nothing in common with the shippers and receivers. The increase was not made in good faith. It was made to give the elevators a monopoly that didn't belong to them, and drive every one else out of the business. He predicted that if the elevator men succeeded, his hearers would see that in the course of a year the grain trade would be in the same condition as the provision trade—in the hands of a few men. Then they would have to go to the elevators to buy their grain; the seller would have every advantage, and would demand his own prices. Unofficially, he would announce that the committee of the Board had agreed to recommend the rescinding of the second clause, but the proposition was rejected, although offered in a spirit of compromise. Beyond this nothing further was done. If the Board of Trade desired to surrender, then the Board itself must perform the act of capitulation.

As there were no prospects of the two factions coming to any agreement, the meeting adjourned to meet the following day.

On the next morning the elevator owners and some of the other members of the Board agreed upon the following compromise resolutions, which were adopted at a general meeting of the Board in the afternoon:

"Resolved, (1) That the Board of Directors be requested to rescind the requirements for regular warehouses adopted June 24, 1890.

"(2) That the bonds of the warehousemen shall be held to cover only the rules of the Board and such regulations and requirements of the Board of Directors as were in force prior to the passage of said requirements.

"(3) That all warehouses which were regular June 30, 1890, be made regular from that day upon the proprietors thereof filing a bond as above provided, Mr. Neeley to sever all connection between his cleaning warehouse and his regular warehouse.

"(4) That the proposition of the warehouse proprietors to make the rates of storage from July 1, 1890, three-quarters of 1 cent for the first ten days, and one-third of 1 cent for each succeeding ten days or fraction thereof, and the refunding of all charges made by them in excess of such rates on and since July 1, 1890, be accepted as a basis for the settlement of existing difficulties."

The old rates were three-fourths cent for the first ten days, and one-fourth cent for each succeeding ten days, so the advance is very slight. Still it must be considered a victory for the elevator men, as the directors will have to recede from the position upon which was based the claim that they had an arbitrary right to regulate the elevator business.

PLAYING BOARD OF TRADE.

A most appalling sound was heard in the nursery, and the astonished father, with his hair on end, ran to see what was the matter. He opened the door and looked in. Willie was sitting astride his drum, kicking it with both feet. Johnny was twisting the cat's tail, and bringing forth howls of dire agony. Tommy was whirling a rattle. Bobby Stepleford, a neighbor's boy, was superintending a fight between two vociferous dogs. Harry Plugmore, another visitor, was jumping up and down on an empty barrel; half a dozen other casual youngsters were pounding tin cans, and all were yelling at the top of their voices. "What is the meaning of this unearthly racket?" demanded the father, as soon as he could make himself heard above the din. "We're playing Chicago Board of Trade," responded Willie. "Fellers, let 'er go once more!" And pandemonium broke loose again.—*Chicago Tribune.*

THE STORAGE OF GRAIN IN RUSSIA.

One of the greatest hardships of the grain growers of Russia is the want of adequate means for storing and transporting their produce. At certain periods of the year such quantities are brought to the railways that a sufficient number of wagons for transport is not to be

had, nor are the railways prepared to store it. Piled up in sacks in the open, exposed to rain and snow, much of it becomes damaged and worthless. This is especially disastrous to the small farmer, who cannot afford to store his produce, but is compelled to convert it into ready money, and is entirely at the mercy of the middlemen. At one time the formation of a large and powerful company, for the purpose of erecting American elevators and granaries at certain important railway centers, where the grain could be stored and advances obtained on it at determined rates of interest, was proposed. But the government, fearing to create a monopoly, refused to encourage the scheme. After a delay of about four years the difficulty has been solved in a manner described in a recent report by the United States Consul at Moscow. Sanction for the erection and working of elevators has been granted by an Imperial edict empowering the Southwestern and the Raisen Kosloff railways to construct fourteen of these elevators along their respective lines, one of them to be at Odessa. The intention of the government is to leave the working of elevators to the railways, but not to the exclusion of undertakings of the kind by private persons, or by town corporations, municipalities, or other public bodies. The *zemstvos* (rural municipalities) are empowered to erect elevators, and although the government does not wish to influence them, any initiative they may take in this respect will be viewed with favor. Three different modes of introducing the adoption of grain elevators into Russia are open to the government. They may be constructed and worked at government expense, private enterprise may be created and encouraged by concessions, or the whole matter may be left in the hands of the railway companies which, next to the farmers, are most deeply concerned in it. It is the latter mode that has prevailed, but the government has reserved to itself the absolute right of appropriating all these elevators at any moment it may deem fit. A scale of charges has been fixed and remains under the control of the state, and the government has gone carefully into all the details of the question, and adopted every measure to prevent the creation of anything approaching to a monopoly. To meet the cost of the construction of the elevators the Southwestern Railway has been authorized to make use of its pension fund, on condition that the money may be repaid by annual installments spread over a term of twelve years, at an interest of $5\frac{1}{4}$ per cent. Should the revenues derived from the elevators prove insufficient, the deficiency shall be paid out of the company's general revenue. For the same purpose the Raisen-Kosloff Railway is authorized to issue a loan guaranteed by the government. The elevator system so much needed in Russia will now be introduced without the expenditure of any government funds, and still a perfect control of the entire system is secured to the government on conditions hardly suited to private undertakings of the same kind.—*Bell's Weekly Messenger*.

According to Mr. Edward Atkinson there are some admitted difficulties in placing automatic sprinklers for the protection of buildings to which high-tension electric currents are admitted, lest the water itself should make cross arcs on which the high tension current of electricity might be spread.

WIRE LINK BELTING.

Herewith we give illustrations of the World's Fair Wire Link Belt. The belting is formed of spiral wire links which are made flat, from one inch to three inches wide, coupled together with steel rods. These rods work in horizontal sockets running parallel with the rod, making the link a perfect hinge. These are not round spirals,

to have the proper socket for the rod to work in. The wire used in these links ranges from No. 8 to No. 12, giving the desired strength and the belt is capable of being run perpendicular, horizontal and twisted, quarter, half or three-quarter turn.

Fig. 1 is of a wire link belt about eighty feet long, running from a pulley to a dynamo. Fig. 2 shows how it may be run on a half turn, the belt about six inches wide.

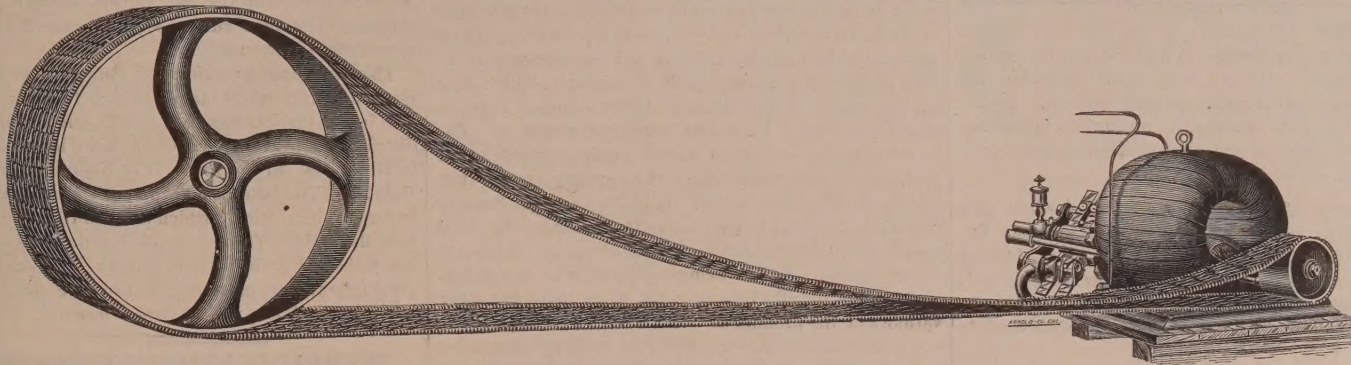


FIG. 1.

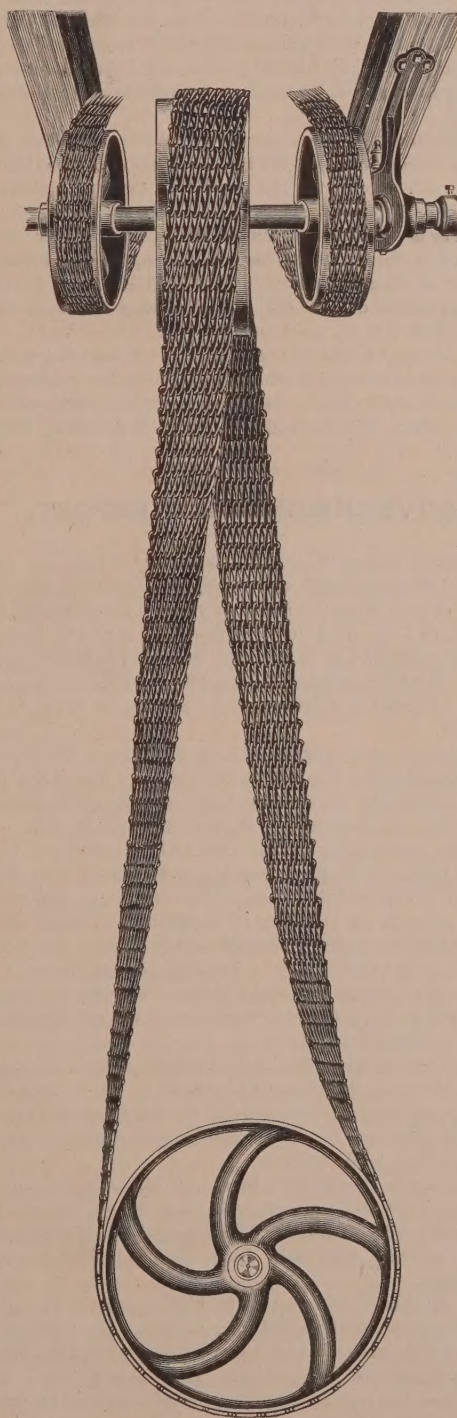


FIG. 2.

flattened, neither are they flat oval, but they are spirals wound flat and set to keep their proper shape to receive the rods which couple them together, or in other words

The advantages claimed for this description of belting are many, among the most prominent being the fact that it is very strong at the joints; that the links being in one flat spiral the width of the belt and the coupling rods being jointed, makes the belt applicable to the full width of the pulleys, when crown pulleys are used; that the whole circle of the pulley is practically covered with the pulling surface of the belt; that it is free from "air cushion," is absolutely fireproof and can be run outside in any weather without rusting; also that it can be easily lengthened or shortened. This belting is manufactured by GEO. KELLY & Co., 211-213 E. Randolph street, Chicago, Ill.

GRAIN STORAGE AT RAILWAY STATIONS IN GREAT BRITAIN.

An account in a London exchange of a recent trial of a grain merchant, in which he was sued for storage, gives an insight into the way the railroads of Great Britain handle the grain traffic. A case, says our contemporary, of much importance to merchants, millers and other traders was heard in the Dundee Small Debt Court before Sheriff Campbell Smith. Some time ago the Caledonian Railway Company raised an action against Thomas Alison, produce merchant, Dundee, for £1 14s. 10d., being rent for the storage of goods comprising 75 bags of barley, 48 bags of oats, and a large quantity of flour received at Dundee from Blairgowrie, Glasgow and Forfar between February, 1887, and October, 1889. The North British Railway Company also sued Mr. Alison for 5s. 7d. for storage for a week of 145 bags of oats—40 in October, 1888, and 105 in October, 1889.

Mr. Alison stated that hitherto he had not paid anything for the storage of grain, and that the rule was that in Edinburgh grain was stored free for a fortnight, while in Glasgow and other places to which he had sent grain it was stored by the railway companies free of charge. It was stated on behalf of the railway companies that some years ago a circular was issued by them to traders intimating that storage would be charged for grain that was kept within the companies' premises beyond a specified time. The sheriff said he had no doubt what the witnesses for the Caledonian Railway had stated before him some time ago were the true facts of the case. They had no interest to do anything else, and their evidence seemed as conclusive as anything of the kind could be where so long a period had been allowed to elapse before a claim was made. Small charges of the kind now sued for ought not to have lain over so long, because those against whom such claims were made had no opportunity of checking them. Because of the doubts which arose in his lordship's mind from that circumstance—Mr. Alison not having a fair opportunity of stating all he might have stated in defense had the action been raised shortly after the charges were incurred—he gave decree in the case of the Caledonian for £1, with 5s. of expenses, and in the case of the North British for 4s. 0d., with 4s. 3d. of expenses.

Ocean freight rates on grain from San Francisco to Europe have been advanced.

Queries and Replies.

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column.

No. 25. Size of Pulleys.—In answer to "Reader, would say a very easy method to find the size of driving pulley is multiply 700, the revolutions required of machine, by 8, diameter of pulley on said machine. Divide the product by 270, number of revolutions of driving shaft, and your quotient will be the diameter of the driving pulley.—A. C. S.

No. 26. Speed of Elevator.—Will some elevator man who knows please inform me through the AMERICAN ELEVATOR AND GRAIN TRADE, at what speed an elevator carrying oats can be run successfully over 20-inch pulleys? I am enlarging my warehouse and putting in elevators, and do not wish to make changes after work is finished.—X. Y. Z.

No. 27. Rosin on Belts.—In answer to No. 21 Queries and Replies I will say that I have used rosin for a short time on belts, and find that it makes the belts rough and stiff. If you use a leather belt, by applying a piece of tallow against and inside of the belt it will keep your belt clean and soft, and cause it to hug the pulley nicely. If you use rubber belts, apply a few drops of castor oil instead.—P. AMBLEY, Las Vegas, N. M.

No. 28. Speed of Machinery, Size of Pulleys.—In reply to "Reader's" query I send the following rule, also his example to find how often a pulley or spindle will revolve while the first wheel is making one revolution. Rule: Place the drivers on the right, on the left the driven; if the driven be in inches, place 12 under the drivers. To find the diameter of a wheel to give any desired speed. Rule: Reverse the last rule by placing the required speed on the right, the drivers on the left, and the driven on the right. Shaft running 270 revolutions per minute, machine to run 700 revolutions per minute, with 8-inch pulley, to find the size of the drives:

Shaft 270/700 rev. machine to make.

8 in. pulley.

560

20 20-27 in. diameter driver.

I trust this will be satisfactory.—PULLEY.

WHEAT EXPORTS.

The wheat exports for the crop year ending June 30 amounted to 54,387,767 bushels valued at \$45,275,906, against 46,414,129 bushels valued at \$41,652,701 for the preceding crop year. Of the amount exported during the last crop year Great Britain and Ireland took 38,240,523 bushels, against 31,568,536 for the preceding crop year; Germany, 8,783 bushels, against 9; France, 3,846,505 bushels, against 7,655,176; and other European countries, 2,292,716 bushels, against 1,851,925 for the preceding crop year.

British North America imported 2,292,716 bushels, against 1,851,925; Central American states and British Honduras, 56,215 bushels, against 53,049; and other countries, 2,844,278 bushels, against 1,417,963 bushels for the preceding crop year.

During the crop year 1887-'88, 65,789,261 bushels were exported; 101,971,949 bushels in 1886-'87; 57,759,209 bushels in 1885-'86; 84,653,714 bushels in 1884-'85; 70,349,012 bushels in 1883-'84; 106,385,828 in 1882-'83; 95,271,802 in 1881-'82; 150,565,477 bushels in 1880-'81; 153,252,795 in 1879-'80; and 122,353,936 bushels in 1878-'79. In no preceding crop year did the wheat exports exceed 73,000,000 bushels, but ever since the crop year of 1878-'79 the exports of wheat flour have been increasing, and during the last crop year 12,231,771 barrels valued at \$57,036,168 were exported. The most of it was taken by Great Britain and Ireland.

A correspondent of the New York *Commercial Bulletin* says that "Central New York will have an excellent crop of rye. The straw is generally heavy where I have been, and the heads long and full of plump, handsome grain. I have not found in any field a single trace of the lice which have been so much talked about as destroying the crop."

ELEVATORS IN THE ARGENTINE REPUBLIC.

Speaking of the grain trade in the Argentine Republic, Consul Baker of Buenos Ayres, in a report published by the State Department, says:

"So far as my knowledge extends, the only grain elevators in South America are those located in the provinces of Santa Fe and Buenos Ayres, in this republic. There may be one in Valparaiso, but if so I am not aware of it. The elevator and grain deposit in this city, which goes by the name of the Buenos Ayres Central Produce Market, is a very large and imposing structure. The building covers an area of 47,000 square meters, under roof, and is three stories high, with capacity for the storage of 238,000 cubic meters. It fronts upon the Boca or Riachuelo, with a fine dock along the landing. The total area of the premises embraces over 30 acres, or 127,478 square meters. Besides being a deposit, it is also a general market for all kinds of grain, wool, hides and other varieties of the produce of the country. This market is not only a center for all the different railway companies, each one having its tracks running into the deposit, but it is also arranged, by separate entrances, to receive bullock carts coming with produce from the interior. Vessels for foreign ports are loaded directly from the elevator, and its facilities for handling grain are of the first order, the greater portion having been brought from the United States.

"Besides this, there are now almost completed in Rosario an elevator for the Buenos Ayres & Rosario Railway, and another for the Argentine Central Railway. The capacity of these is 250,000 bushels each. The machinery is all from the United States, and mostly furnished by the Buckeye Company, Salem, Ohio, and Robt. Poole & Sons Company. They will each cost in the neighborhood of \$300,000, and everything in connection with them is in the most modern style.

"Contracts have also been made for at least two large elevators in this city in addition to the one I have already referred to; also for one at Villa Constitution, twenty-five miles below Rosario, and for one at Montevideo, Uruguay."

GOVERNMENT CROP REPORT.

There is a reduction in the condition of cereals as reported by the statistician of the department of agriculture. The decline from the 1st of July to the 1st of August is from 93.1 to 73.3 in corn, from 94.4 to 83.2 in spring wheat, from 81.6 to 70.1 in oats, from 88.3 to 82.8 in barley. Condition of buckwheat is 90.1, and on spring rye 86.8. Condition of Irish potatoes is reduced from 91.7 to 77.4.

A fall of twenty points indicates the disaster which has befallen the corn crop within thirty days. The cause is the abnormally high temperature of the central maize districts, with insufficiency of rainfall. The returns of drouth, which cover a broad area, and the severity of effects produced are more general and depressing than the signal service records on temperature appear to indicate. One factor in the blighting of vegetation is evidently the hot winds that have scorched the lower basin of the Missouri and the Ohio valley. The change from drouth to daily saturation by repeated and heavy showers has been too sudden and extreme in those regions where blight has been relieved by moisture.

The crop is late in the New England states and will require a long, warm season to mature it. In the Middle states the high temperature has advanced growth in the northern districts and in the more southern there has been some injury by drouth.

The south Atlantic ports report local drouths, with subsequent rains, and comparatively good though somewhat reduced condition of corn. Some counties in Mississippi have suffered materially from absence of seasonable moisture.

In Louisiana the crop is in high condition, though somewhat late in the overflowed districts. In Texas the crop is now matured, and is good except in the area that has suffered most from drouth. Late planted corn in Arkansas has been seriously injured by drouth of the last three weeks in July.

In Western Indiana and southwestern part of Kentucky the corn has been severely scorched, but the rains since the 23d of July have materially relieved the fields of the central and eastern districts. In Ohio there is a great

difference between the northern and southern part of the state.

The southern division of the counties of Indiana and Illinois have likewise received greater damage than the northern. Condition is slightly higher in Missouri. In Kansas the severity of the drouth has culminated. Iowa and Nebraska are nearly in the status of the Ohio valley, while Minnesota makes the highest average of all the states. Wisconsin suffers slightly and Michigan still more from the drouth.

There has been a considerable reduction in the condition of spring wheat, amounting to fully eleven points. It is less in the Dakotas than in the other spring wheat districts. The average condition is 80 in Wisconsin, 80 in Minnesota, 87 in Iowa, 71 in Nebraska and 88 in the Dakotas. The latter is a decline of seven points, owing to hot southern winds, which affected the late sown more than the early. The oat crop is certain to be one of very low yield and probably poor quality. Another crop of great importance, potatoes, has also been much damaged by drouth. A low rate of yield is assured.

HYBRIDIZATION OF CEREALS.

Messrs. R. and J. Gorton of Newton le Willows, Eng., in a recent communication to *Bell's Weekly Messenger* of London say:

We have much pleasure in bringing before your notice a series of experiments which we have been conducting here since 1880, the object being the improvement of the cereals in their several classes by a prolonged course of hybridization and selection, and which, together with microphotographs of the reproductive organs of the plants under notice, have been regarded with much interest by the Board of Agriculture.

These experiments have been of a purely private character, and have been conducted on a practical and scientific basis, and we think we may safely say they are far in advance of anything yet attempted toward this object, either in this country or by the various experimental stations on the Continent and in America.

The following are some of the results so far obtained:

Wheat.—An extraordinary increase in the size of breasts and grains and length of ear.

Oats.—An increase of about one third in size of grain over the varieties now in general cultivation. Several new and distinct varieties producing groats without husk or outer covering, also improved varieties for winter sowing, which show extraordinary vigor over other varieties.


Barley.—By constant hybridization and selection we have succeeded in causing the four rows of unfertile cases in the Chevalier class to become fertile, and we expect eventually to produce a variety equal in all points to the Chevalier; but with this advantage—viz, instead of producing two rows only of grains, and four rows of unfertile cases, all the six rows will be fertile and productive.

Judging from these results, we think it not improbable that at no distant date the corn growing industries of the world will be entirely revolutionized by the introduction of improved varieties whose productive powers will be far in excess of those under cultivation at the present time. When we consider the annual growing demands of an ever increasing population, and how these demands are eventually to be supplied, we think you will agree with us that these experiments are of the greatest national importance, and we cannot help but think it strange that a work of such vital importance to the succeeding generation should have been entirely neglected by the leading agricultural societies and the various state departments of agriculture.

THE HAPPY TIMES OF OLD.

An Iowa farmer says: "Most of our grievances are imaginary. Were any of you alive in 1842? I lived in Eastern Iowa, a territory at that time, and hauled shelled corn from Morning Sun to Burlington—twenty-eight miles—and sold it at 6½ cents a bushel. The very corn was shelled by hand in a wash tub. We dressed our own pork and hauled it to the same town for 1½ cents per pound, and made our own clothing, lived on pork, corn-bread and rye coffee, went without shoes, and were very happy."

No flaxseed was exported during the crop year ending June 30, 1889, but during the last crop year 14,678 bushels were exported.



COMMUNICATED

(We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interests of the trade at large, or any branch of it.)

HAVE ENLARGED ELEVATOR.

Editor American Elevator and Grain Trade:—Inclosed please find one dollar for one year's subscription to the AMERICAN ELEVATOR AND GRAIN TRADE. We have lately enlarged our elevator to 50,000 bushels' capacity. Oats in this section are becoming badly rusted, but the prospect for corn is very good.

Yours truly,
J. A. McCONNELL & SONS.
Bayard, Iowa.

OPINION OF A WISE GRAIN BROKER.

Editor American Elevator and Grain Trade:—I have seen several copies of your invaluable journal, the AMERICAN ELEVATOR AND GRAIN TRADE. From information gained from the same I am convinced that it should be placed in the hands of every grain broker, as well as those interested in the grain trade. Inclosed please find postoffice order for amount of subscription for one year. I shall be pleased to receive this month's edition, and look forward to its reception with pleasure.

Yours very truly,
O. ROGERS.
Brunswick, Ga.

PREMIUM FOR GRAIN LOADED FROM COUNTRY ELEVATOR.

Editor American Elevator and Grain Trade:—I have noticed something in your journal in regard to the railroad companies paying country elevator men one cent per bushel for all grain loaded from their elevators. It strikes me that the acceptance of such a scheme would, in the long run, do the elevator men more harm than good.

In the first place, the offer of railroad companies to pay elevator owners one cent per bushel for all grain loaded from them would be considered such a great prize by farmers that they would form companies and erect one or two elevators at every station along the line of the company making the offer. I admit that, in the end, the farmer would not gain anything by such a course, but one cent a bushel would make him overlook his own inability to manage well.

Railroads are not operated for the accommodation or convenience of any one, it is for the money that is in it, and it looks to me like a rank piece of foolishness for any one to expect a railroad company to pay one cent a bushel for grain loaded from elevators at other than stations doing a small grain business. Railroad companies economize wherever they can, and rather than pay one, two, or three thousand dollars a year to an elevator man for the grain loaded through his house, they would erect elevators of their own.

Railroad companies might be willing to pay one-quarter or one-third of one cent per bushel for grain loaded from elevators at large shipping points, and probably one-half cent at small stations, but they are not likely to pay a greater premium. If they do it will prove detrimental to the present elevator owners.

I may be wrong in regard to this matter, and I would like to hear the views of other grain shippers.

UNPREJUDICED.

"SPECULATOR" REPLIES.

Editor American Elevator and Grain Trade:—I notice that you publish in your July issue about a column of rant and false statements from the *Toledo Market Report* to which I wish to reply. The "Wise Old Secretary" undoubtedly has my full history, and knows to a minute how long I have been in control of the Chicago Board of Trade. I admit I own the Board as well as all the irregular elevators.

In the first place I was not seeking to build up Chicago by tearing down Toledo. That is a policy I have never followed. However, I did show that Illinois grain merchants did not carry out the threat they made when trying to have Chicago wheat grades changed, that was, to send their wheat to Toledo instead of Chicago. It is to

their advantage to ship to Chicago, and they know it: I gave the figures to show that they had not shipped any considerable quantity of wheat to Toledo, and I can prove that they are correct. They were taken from official reports.

It would be sure death for the secretary to do otherwise than try to defend the inspection department of the body which employs him, so he is not to be understood as believing the inspection department is the best. He must not be expected to do otherwise than serve his masters.

He appeals to the documents, but he cites nothing to show that Toledo received a larger per cent. of fine milling wheat than Chicago. It was easy to deny my statement, impossible to prove it false.

I have nothing against Toledo or its inspection. I do not wish to be misunderstood. I claimed and still do claim that it is to the advantage of Illinois grain shippers to send their grain to Chicago, and that they had continued to do so, regardless of their threat made last winter.

SPECULATOR.

BUFFALO WEIGHING DEFENDED.

Editor American Elevator and Grain Trade:—In your issue of July 15, 1890, are the following words, to which my attention has been called:

"The trustees of the Merchants' Exchange of Buffalo propose to place the freight bureau, flour and grain inspection, and weighmaster's department under the supervision of the Secretary of the Exchange. Any change that will prevent a repetition of last year's wretched weighing service at that port will be hailed with joy by Western shippers."

While we find errors and defects in Buffalo at times, and by finding them have been enabled to correct and simplify matters so as to reduce the probability of error to a minimum, and to make almost certain the discovery of any serious error if here, we have also in every season been enabled to trace errors and serious defects to other points, and at no time for the past ten years has the average shortage been one-fourth as great as it was when at my urgent request the present system was adopted. Now, if wretched service is shown by a system which has cut off eighty per cent. of the shortage, then are you justified in using the above quoted language—not otherwise.

No action, so far as I know, is even contemplated by the Board, which will in any way interfere with my entire control of my department; and I do not clearly see the force of the remark about Western shippers, as the owner of the vessel which carries the grain pays for the shortage, if any, and employs my men, because we have reduced the shortage to a minimum, and take every possible care to trace, if possible, any errors that may occur, as they sometimes do and probably always will, even with the best of care.

If the remark in regard to Western shippers referred to car work—as in this they might have a direct interest—I have only to say that not one car from the West was weighed through my department in 1889.

JUNIUS S. SMITH,
Merchants' Exchange Weighmaster.

Buffalo, N. Y.

DEFENDS GRAIN DEALERS.

Editor American Elevator and Grain Trade:—In your issue of July 15, under the head of "Shrinkage and Mixing," your correspondent seems to take it for granted that the honest farmers are the only sufferers in consequence of short weights and shrinkage in transportation and the misdoing generally at terminal centers.

He directly accuses the original buyer who purchases it directly from the farmers of being a thief. While there may be, and most likely are, dishonest men engaged in buying grain from the farmers, I believe the grain buyers as a class throughout the country to be as upright and honest in their dealings as any class of business men, and it does not necessarily follow that because they suffer from the abuses which your correspondent enumerates that they (the dealers) must themselves turn about and steal from the farmers to get even. (This is the way I interpret his words.) Should there be a disposition on the part of the buyer to do so, there would be little chance for him to put it into successful practice.

I will state for the benefit of your correspondent that the poor but honest farmers invariably have their scales at home, and every load is weighed. It therefore at once seems that the shrinkage does not come out of the farm-

ers, and right here I might also add for his information that the farmer of to-day is abundantly able to take care of himself. (They might not have been when your correspondent was in the business.) The fact is, this eternal rant about the wrongs of the poor farmers is getting to be a nuisance. That the farmers suffer from abuses and the lack of proper legislation, in common with other classes of business men, no one will attempt to deny. It is becoming too much the fashion when a certain class wants some particular piece of legislation enacted for their own benefit for them to begin a crusade against some other class, under the pretense that the measure is needed by the poor down-trodden farmers.

Now, on the other hand, all the laws which have been put forth for the past ten years to help the farmers, and which have been called farmers' measures and passed on that issue, and have been supported by the farmers, have resulted only in putting the originators into some fat office, and that is all the good that it has done.

These laws have made the condition of the farmers certainly no better, and have injured them to the extent that they have made it harder for the class of men who deal directly with the farmers to buy and market their produce.

Excuse me if I digress. I only meant to defend my brother grain dealers from the imputation cast upon them by your correspondent. That the abuses he speaks of do exist, we all know by experience, and the remedy for them seems to be inadequate, and in some cases no remedy at all under the law. However, as far as my experience goes, there has been a great change for the better, which I think is directly owing to the good work that has been brought about by the AMERICAN ELEVATOR AND GRAIN TRADE in allowing the free use of its columns to denounce the abuses of the grain trade.

Yours truly,
F. R. MORRIS.
Templeton, Wis.

DIRT IN SCOTCH GRAIN.

It seems that much of the grain grown in Scotland is marketed in a dirty condition. A correspondent of the *North British Agriculturist* says: Some years ago foreign grain arrived here very foul, having a mixture of other corn in each of the different kinds of grain; besides, it was badly dressed. This deteriorated the price very much, often to the extent of several shillings per quarter. All this has changed, and the foreigner now sends wheat and barley and oats also from some places in very fine order. The result is, that their grain has a better name and the highest prices paid for it. My object in stating this is, that the Scotch farmer in some districts has taken the place of the foreigner—or rather what was his place—and now sends his wheat, barley and oats to market, direct away from the steam thrasher, in the most careless manner, the fanners being relegated to some outhouse for no more use. This is a most suicidal policy, and one which, if not checked, will give Scotch grain a bad name; and buyers are now chary of buying parcels direct from some farmers, as the trouble and loss dealers have with consumers is more than the profit will stand.

CORN EXPORTS.

The corn exports for the crop year of 1889-'90 exceed the exports for all preceding crop years, the amount exported being 101,973,717 bushels, valued at \$42,658,015, against 69,592,929 bushels, valued at \$32,982,277 for the preceding crop year.

For the crop year of 1887-'88 only 24,278,417 bushels were exported; 40,307,252 bushels in 1886-'87; 63,655,433 bushels in 1885-'86; 51,834,416 bushels in 1884-'85; 27,648,139 in 1883-'84; 40,586,825 in 1882-'83, and 43,184,915 bushels in 1881-'82.

During the preceding crop years the corn exports were unusually large, being 70,860,983 bushels for the crop year 1876-'77; 85,461,098 in 1877-'78; 86,296,252 in 1878-'79; 98,169,877 in 1879-'80, and 91,908,175 bushels in 1880-'81. In no preceding year did the corn exports exceed 50,000,000 bushels, and in only one year did they exceed 38,541,930 bushels.

The consumption per capita for the crop year 1888-'89 was 29.95 bushels. The percentage exported was 3.56. The largest consumption per capita was for the crop year 1880-'81, being 31.55. The largest percentage exported was in 1879-'80, being 6.45 per cent.

In addition to the above, however, large quantities of corn have been exported in the shape of cornmeal, live stock and meats.

Fires, Casualties, Etc.

Two large elevators at Omaha, Neb., were burned July 31.

Tyler & Co.'s elevator at Staley, Ill., has been burned; loss \$8,000.

Bass & Ennis, grain buyers at Walnut, Ill., lost \$13,500 by fire July 31.

One thousand acres of fine grain at Newman, Cal., were destroyed by fire July 25. The grain was insured for \$10 per acre.

Robert C. Page, the popular young grain broker of Chicago, is dead.

The rice mill of Bush & Williams at Thibodaux, La., has been burned.

Faulkner & Willet's warehouse at Hornellsville, N. Y., has been burned.

E. C. Thompson's warehouse at Ewart, Mich., has been destroyed by fire.

The Atlas distillery building at Des Moines, Iowa, was blown down Aug. 3.

W. H. Negley of Negley & Wilson, grain dealers at Walnut, Iowa, is dead.

H. M. Spalding's elevator at Denton, Tex., has been burned. Loss \$10,000.

Wm. H. Hutchins' grain elevator at Sarnia, Ont., was burned July 9; loss \$6,000.

J. D. Thompson, flour, feed and grain dealer of Ithaca, Mich., has lost \$100 by fire.

The Smart elevator at Platteville, Wis., was destroyed by fire, caused by lightning.

S. Dingeldain's brewery at Springfield, Ill., was burned July 18. Loss \$30,000; insurance \$5,000.

F. Oswald's elevator at Alhambra, Ill., was burned July 21. Loss \$2,000; insurance \$1,400.

The grain elevator and warehouse at Moorhead, Minn., owned by W. H. Davy & Co., have been burned.

The large stone elevator and mill of the A. A. Freeman Company at La Crosse, Wis., was destroyed by fire Aug. 2. Loss \$300,000; insurance \$160,000.

A. F. Franklin, grain and corn dealer of Brunswick, Ga., has been burned out. Partially insured.

F. H. Gilliam & Co.'s elevator at Gilliam, Mo., was burned July 15. Loss \$15,000; no insurance.

The storeroom and grain owned by Henry Russe of Indianapolis, Ind., was damaged by fire Aug. 8.

Walter Freak, an employee at Armour's elevator, Chicago, was dangerously wounded, Aug. 8, on the back of the head by a shutter, which fell as he opened it.

James Longhead's warehouse at Sarnia, Ont., was burned July 10. Loss \$5,000; insurance \$1,700.

Glauber & Isaac, grain and produce commission dealers of Brunswick, Ga., have suffered loss by fire.

The grain elevator at Tenney, six miles east of Moorhead, Minn., was blown down by a wind storm recently.

The Northern Pacific Elevator at Valley City, N. Dak., containing 8,000 bushels of wheat, was recently burned.

The Southern Cottonseed Oil Mills at Atlanta, Ga., were burned recently. Loss \$200,000; insurance \$100,000.

Levinson & Co. of Spokane Falls, Wash., commission dealers in grain and fruits, have lost \$3,000 by fire; insurance \$2,000.

John C. Tuck, an old grain dealer of Lynn, Mass., died of heart disease recently. He started in the grain business in 1837.

The Pullman Elevator and Oatmeal Mill at Chicago was burned Aug. 10. Loss \$45,000; insurance \$31,000. W. M. Druly of Chicago was the owner.

The grain elevator at Deers, Ill., containing several hundred bushels of grain, owned by Van Brunt & Godfrey, was burned July 9. Loss \$2,000; insurance \$500.

An explosion of mill dust, Aug. 1, followed by a fire, in the malt house of the Keeley Brewing Company at Chicago, caused a loss of \$60,000. No one was injured.

Johnson & Comstock's elevator at Binghamton, N. Y., was burned July 21, together with 2,000 bushels of barley and 30,000 bushels of oats. Loss \$10,000; insurance \$16,955.

Farrington & Reynolds' elevator at Corning, Iowa, was burned on the evening of June 18. The contents, which was chiefly baled hay, was all ablaze before the fire apparatus arrived.

Philo Durfee, a well-known grain dealer of Western New York, died June 7 at Cherry Hill, N. J. Mr. Durfee was one of the early shippers of flour and grain over the Erie Canal; he was associated with David Dows,

Jesse Hoyt, Dean Richmond, S. J. Tilden, E. D. Morgan, and other old-time grain dealers.

The brewery of Leisen & Henes, at Menominee, Mich., containing 5,000 bushels of malt and barley, and part of the machinery, was burned July 2. Loss about \$15,000; insurance \$8,000.

E. C. Sax, the oldest commission merchant of Jacksonville, Ill., died July 20. During the war he held large contracts with the government; he dealt largely in grain at Chicago and Toledo.

Henry Wolfe died recently on his farm at Gill's Neck, near Wilmington, Del., aged 80 years. He began business over fifty years ago, shipping grain and wood to New York and Philadelphia.

Isaac M. Damson, an old resident of Terre Haute, Ind., died July 31, aged 84 years. He settled in Terre Haute in 1824, and later went into the grain and produce business. He retired from active business twelve years ago.

The steamboat H. J. Jewett, while going up the Chicago River recently, struck a canalboat with her wheel. The canalboat was half loaded with grain from the Indiana Elevator. The tug Mosher, with her pumps, kept the canalboat from sinking until a jacket was put over the leak.

J. T. Watkins' grain warehouse at Irvington, Cal., was burned on the morning of July 21. The fire was incendiary, both ends of the warehouse being discovered on fire. The loss on the building is \$10,000; insurance \$5,500. The farmers, who had about 8,000 bushels of wheat stored, will lose \$10,000.

John Ushur of Radner was suffocated in a grain bin at Bergdoll's brewery in Philadelphia. He entered an empty bin and pulled the trap of a chute, was knocked down by the grain and buried under several tons of it. Attention was attracted to his team standing by, and a search being made, his dead body was discovered in the bin.

An accident occurred Aug. 6 at the St. Paul Elevator, Chicago, by which five men were thrown into the river and one of them drowned. The unloading of the steamer Seneca had just been finished, and the men started to go ashore by means of a ladder from the forward gangway. The five men were all on the ladder at the same time, their weight broke the ladder, and they were precipitated into the river. One of them, George Huston, was rendered unconscious by a blow and was drowned.

The Crabbs & Reynolds elevator at Crawfordville, Ind., was burned July 18. This is the second time within a year that this firm has been burned out by an incendiary fire. The elevator was built recently by Edward Reynolds, who had sold a half interest to B. F. Crabbs on the previous Wednesday for \$6,000. The fire began in the basement, and when the alarm was given the flames had burst through the roof. The total loss is \$15,000; insurance \$9,000. The fire started at two o'clock in the morning. The loss on the building is \$8,000; insurance \$5,000. Eight thousand bushels of wheat were burned, worth \$7,000; insured for \$4,000. Farmers who were waiting for higher prices had several hundred bushels of wheat stored in the building.

ELEVATOR OPERATED BY ELECTRICITY.

The new grain elevator in South Ottawa, Ill., owned by H. S. Gilbert & Co., will be run by electricity in the future. A new electric motor was put in place recently. The current will be supplied by the street railway company. On the trial made the motor worked to perfection. This is probably the only grain elevator in the world which is operated by electricity.

QUOTATIONS WITH BOTTLES.

The "bottle code" is the latest scheme of the bucket-shop men for securing continuous market quotations. The scheme worked successfully until recently, when the Chicago Board of Trade authorities fell upon the projectors and brought them to book. As a result two members of the Board were before the directory recently, and were given vacations of thirty days each.

The little plan which the operators worked so nicely was quite simple. Eight bottles—empty, of course—were placed in a row in the window of a wet-goods emporium across the street. Each bottle represented the eighth cent fluctuations of the market. When the price of wheat went from 90 cents to 89½ cents, one of the bottles disappeared; when it went to 89¼ cents, another was missing. By the time the bears raided the price to 89½ cents only one little bottle remained. The quotations were signaled from the pits to a man at the west windows of the Board, and were then signaled to the boy with bottles across the street. A telegraph operator who sat in view of the bottle show in the window sent the quotations out by wire. C. A. Orvis and H. J. Sheldon were the Board of Trade members whom the directors disciplined.

LATE PATENTS.

Issued on July 15, 1890.

BELT FASTENER—Carl R. Welde, Königstein-on-the-Elbe, Germany. (No model.) No. 432,104. Serial No. 344,533. Filed March 19, 1890.

DRIVE CHAIN—David J. Sheldrick, Columbus, Ohio, assignor to Jas. A. Jeffry, same place. (No model.) No. 432,089. Serial No. 319,677. Filed Aug. 3, 1889.

GRAIN CARRIER—William H. Knapp, Galesburg, Mich. (No model.) No. 432,052. Serial No. 330,497. Filed Nov. 15, 1889.

GRAIN SEPARATOR—Ernest E. Chapman, Doylestown, assignor of one-half to Fred Noller, Fountain Prairie, Wis. (No model.) No. 432,370. Serial No. 346,507. Filed April 4, 1890.

GRAIN SEPARATOR—Sidney E. Chase, Wolcottville, Ind. (No model.) No. 432,117. Serial No. 297,477. Filed Jan. 24, 1889.

GRAIN MEASURING DEVICE—Charles A. Wever, Clayton, Ill. (No model.) No. 432,347. Serial No. 338,387. Filed Jan. 28, 1890.

Issued on July 22, 1890.

MAGNETIC SEPARATOR—George S. Finney, Chicago, Ill. (No model.) No. 432,823. Serial No. 329,884. Filed Nov. 11, 1889.

FRICTION CLUTCH—James Clark, Medina, N. Y. (No model.) No. 432,600. Serial No. 344,395. Filed March 18, 1890.

SELF OILING PULLEY—Edward Goss, Hartford, Vt. (No model.) No. 432,666. Serial No. 295,733. Filed Jan. 8, 1889.

Issued on July 29, 1890.

BALING PRESS—George Ertel, Quincy, Ill. (No model.) No. 433,278. Serial No. 337,368. Filed Jan. 18, 1890.

MACHINE FOR CLEANING BARLEY—Rudolph A. Baumgartner, Rosenheim, Bavaria, Germany. (No model.) No. 433,160. Serial No. 339,421. Filed Feb. 6, 1890. Patented in Germany May 16, 1889, No. 46,902, and in England May 21, 1889, No. 8,426.

MALT SCOURING MACHINE—Joseph Goeddeke, Detroit, Mich. (No model.) No. 432,998. Serial No. 335,757. Filed Jan. 3, 1890.

GRAIN SCALE—Noble G. Ross, assignor to the Cyclone Manufacturing Company, New London, Mo. (No model.) No. 433,422. Serial No. 338,778. Filed Jan. 31, 1890.

Issued on August 5, 1890.

BALING PRESS—John W. Hunter, Macon, Miss. (No model.) No. 433,469. Serial No. 324,883. Filed Sept. 24, 1889.

BALING PRESS—George A. Nelson, Woods, Tex. (No model.) No. 433,629. Serial No. 338,381. Filed Jan. 28, 1890.

BALING PRESS FOR HAY—Rufus G. Ellsworth, Northcott, Kan. (No model.) No. 433,857. Serial No. 325,668. Filed Oct. 1, 1889.

POWER DEVICE FOR BALING PRESSES—Thomas M. Cass and Nathaniel Cass, Cameron, Tex., said Nathaniel Cass assignor to Sterling P. Cross, Milam county, Tex. (No model.) No. 433,887. Serial No. 347,811. Filed April 14, 1890.

DEVICE FOR PLACING BELTS UPON PULLEYS—Henry A. Schenkerle, Philadelphia, Pa. (No model.) No. 433,825. Serial No. 330,572. Filed Nov. 16, 1889.

ELEVATOR—Chas. A. Case, New York, N. Y. (No model.) No. 433,762. Serial No. 349,998. Filed April 30, 1890.

SAFETY CUT-OFF FOR GRAIN ELEVATORS—James B. Soule, Minneapolis, assignor of one-fourth to Rollin R. Smith and Gussie R. Smith, both of Duluth, Minn. (No model.) No. 433,550. Serial No. 341,262. Filed Feb. 21, 1890.

HAY PRESS—Samuel H. Miller and Charles L. Miller, Stockton, Cal. (No model.) No. 433,484. Serial No. 298,522. Filed Feb. 2, 1889.

HAY PRESS—John H. Williams, Maple Hill, Kan. (No model.) No. 433,755. Serial No. 308,588. Filed April 25, 1889.

SPEED REGULATOR FOR PULLEYS—William S. Sims, Pittsburg, Pa. (No model.) No. 433,660. Serial No. 355,145. Filed June 12, 1890.

SAFETY ALARM FOR ELEVATOR AND OTHER BELTS—James B. Soule, Minneapolis, assignor of one-fourth to Rollin R. Smith and Gussie R. Smith, both of Duluth, Minn. (No model.) No. 433,549. Serial No. 334,039. Filed Dec. 17, 1889.

The farmers of Morgan county, Ill., have been harvesting at night by the light of the moon and thus have avoided sun strokes and the loss of horses.

THE LAW.

Lien of Warehouseman.

Under the New York statute giving a warehouseman a lien for his storage charges and for moneys advanced by him for cartage, etc., he is not confined in his lien to the particular goods upon which the charges arose, but has a general lien upon any goods in his possession for balance of charges due by the owner.—*Stallman vs. Kimberly, Court of Appeals of New York, 24 N. Y. Rep. 939.*

Delivery "as Soon as Possible"

Shipment of wheat on June 13 does not comply with a contract made on May 25, which called for delivery at a certain place "as soon as possible" by lake transportation, though vessels for transportation are difficult to obtain, when it appears that the seller had shipped large quantities of wheat to the same point between the date of sale and date of shipment.—*Arthur vs. Wright, Supreme Court of New York, 10 N. Y. Sup. 368.*

False Representation Regarding Freight Charges

Where a railway company accepting freight for shipment over other lines charges a rate which is higher than the through rate agreed upon, and represents to the shipper that such rate is the agreed joint rate, such representation though false does not form a basis for recovery by the shipper, as he was not a party to the contract under which such through rate was made, and cannot claim under it.—*Arkansas & L. Ry. Co. vs. Smith, Supreme Court of Arkansas, 13 S. W. Rep. 929.*

Speculative Contract for Sale of Grain yet to be Grown.

The defendant gave his note in consideration of the sale to him of a quantity of oats of a new variety. The seller agreed to sell for him before a certain date a given quantity of the oats he could raise at a fancy price, and the defendant was to receive his pay in notes. This was not a gambling contract under the Iowa code, but was void as being against public policy.—*Morrill vs. Packer, Supreme Court of Iowa, 45 N. W. Rep. 1076.*

Bohemian Oats—Notes Given for Them.

A party bought ten bushels of Bohemian oats at \$10 per bushel, and the party selling him agreed to buy of him the next season 100 bushels at the same price. This is not a gambling contract, but is a cunningly devised scheme to cheat and defraud. It cannot be carried out without in the end deceiving some persons into paying many times the value of the oats. Both parties to the contract were parties to this attempt to defraud, and the law will afford no relief to either upon such a transaction.—*Shipley vs. Reasoner, Supreme Court of Iowa, 45 N. W. Rep. 1077.*

Measure of Damages for Failure to Deliver Goods.

The measure of damages in an action against a common carrier for failing to deliver goods which it has undertaken to transport is the value of the goods at the point of destination, with interest from the time they should have been delivered, less the freight charges, yet evidence of value at the point of shipment is relevant to the inquiry as to value at point of delivery, and proof of value at point of shipment is not prejudicial to the carrier as the value is presumed to be less at the point of shipment than of destination.—*Echols vs. Louisville & N. Ry. Co., Supreme Court of Alabama, 7 S. W. Rep. 655.*

Clause in Common Carriers Receipt Limiting Liability.

A common carrier's receipt contained a stipulation that if the value of the goods was not stated by the shipper at the time of shipment, and the amount specified in the receipt, the holders would only demand a certain sum as damages in case of loss, and exempt the carrier from greater liability. The effect of such stipulation is to exempt the carrier from greater responsibility, only when the loss occurs without the fault or negligence of the carrier, and the burden is on the carrier to show that it is without fault.—*Southern Express Co. vs. Seide, Supreme Court of Mississippi, 7 S. W. Rep. 547.*

Bucket Shops—Legitimate Transactions.

The Supreme Court of Illinois has upheld the validity of the anti-bucket-shop law in a decision in the case of the State vs. Wm. Soby, who was convicted of violating the law in Morgan county, given three months in jail, and fined \$250. The defendant set up that he was an agent of Robert Lindblom & Co., Chicago, and sent all orders received to that firm to be executed on the Board of Trade. Proof upon that point seems not to have been convincing, however, the court intimating that such was the case. In conclusion the court said:

"It was the legislative intention to prevent the evils resulting from bucket shops and bucket-shopping and to suppress the vice of gambling in grain and other produce so detrimental to the interests and welfare of the people. No other construction of the act would be sustained. It

is our opinion that it is no longer possible in this state under any shift or device, however specious, to keep an office or other place where parties may, under a pretense of buying or selling grain or other produce, engage in speculation in futures and gambling upon the rise and fall of the market. All legitimate commercial transactions on the Board of Trade or elsewhere must be upheld and enforced. It may undoubtedly be true that agencies might be established throughout the state for carrying on such legitimate business, but this agency manifestly was not of that character, and the conviction will be sustained."

Press Comment.

THE ADVANCE IN SILVER.

The advance in silver has appreciated the grain market abroad by increasing the cost of the rupee, with which England pays for her Indian or Colonial wheat. The higher silver goes, the more the wheat costs, whether the quotations are advanced or not. As we sell our wheat for gold, we are thus enabled to compete more easily as silver and gold move toward a parity.—*Baltimore Journal of Commerce.*

MAKES HIS WHEAT COST MORE.

Every advance in the price of silver cuts deeply into the Englishman's pocket. He has been in the habit of buying wheat in India with silver, and tea in China with silver, and he finds that his wheat costs him just so much more, and tea becomes so much more expensive, and the only recompense that he has is that the exchange received for cotton and woollen manufactures shipped to this country yields him so much more in gold.—*Chicago Times.*

GRAIN DEALERS OF RUSSIA AND INDIA EMBARRASSED.

The grain dealers of Odessa appear to have been as much embarrassed by the rise in the paper rouble exchange as exporters from the far East were by the advance in the price of silver. The export trade of Southern Russia is, it is said, being demoralized. The pound sterling has appreciated in a short time about 35 per cent., and it is obvious that the grain exporters of Southern Russia must either trade at a ruinous loss or not trade at all. They have consequently held back the surplus accumulations of last year's harvest, trusting to a depreciation of the rouble currency.—*New York Star.*

SILVER AND WHEAT.

Already John Bull is complaining that the rise in the value of silver is disturbing his quiet little game of securing cheap wheat in India. The Indian wheat trade will fade away if the English merchant has to pay the full value of silver. Since the present movement began silver has risen from 94 cents to \$1.10 per ounce, and England buys more at the latter price than she did at the low price. The trading in silver so far is working entirely to the advantage of the United States. One theory has been promptly exploded, and the fears of those who talked about the United States being made the dumping ground for the silver of all the nations of Europe have been quickly quieted. England must have American silver to promote her trade with India, and now she must pay what it is worth. The result is already apparent. American wheat is worth more on Mark Lane, partly because it costs more to import wheat from India.—*American Cultivator.*

RAILROADS AS ELEVATOR OWNERS.

The millers in convention at Newton, Kan., discussed at considerable length the subject of railroad control and ownership of elevators and warehouses. We cannot see any good to come from the transportation companies owning the elevators. It cannot be considered good public policy from any standpoint of view. It is incompatible with this relation to the public that a warehouseman should be a receiver and forwarder of grain, just as it is inimical to public welfare, and therefore against public policy, that a common carrier should be a shipper by his own line. The temptation to abuse such dual relation in favor of himself is so great that it is not tolerable. Let the railroads keep their hands off; there is now a storm brewing that may and may not have just cause for action. It seems to us that the railroad companies should keep their hands off, and keep within their own limits of common carriers.—*Kansas Miller and Manufacturers.*

THE REAL GRIEVANCE.

The Board of Trade and the warehousemen are at loggerheads. Ostensibly the point at issue is storage. The real grievance is the admitted inability of the commission merchants and receiving firms to compete with the elevator proprietors in the buying and selling of grain. The practical effect of the advance in rates is to give the warehousemen still greater leverage in their now open competition with receivers in the purchase and sale of grain. It gives them just one-half cent a month increased advantage, and cannot but intensify the bitterness between the rival factions. The plea is made by receivers that it is unlawful for warehousemen to deal in property in competition with their customers, to which the reply is made that if warehousemen are denied the right to so trade openly they can buy and sell under cover without the slightest fear of detection. It is clear, however, that if

the warehousemen cannot be prevented from trafficking in grain they will in time absorb the whole business of receiving and shipping the cereal products of the country tributary to Chicago. The business will go to the warehouses with commission house attachments, or to commission firms with warehouse attachments.—*Economist, Chicago.*

LET THE COBBLER STICK TO HIS LAST.

The retort from the grain warehouses that the middle men of the Board of Trade are merely looking out for themselves will not serve. The public generally have a deep interest in the conflict. They want no combinations, no monopolies, and they are prepared to say with the commission men of the Board of Trade, let the cobbler stick to his last; that is, let licensed warehousemen as servants of the state at Chicago keep wholly within the purpose of that license as relates to the grain trade of this city. They are storers of grain by public permission. Let them not become receivers and forwarders of grain, speculators in grain, manipulators of grain, jugglers and jobbers in grain. Theirs is a warehouse business simply. Let them stick to that, keeping strictly within the letter and the spirit of the law, or let the state revoke their license, to the end that they may be taught that with privileges they have duties, and that to neglect the one and abuse the other may not be done with impunity.—*Chicago Times.*

THE EXCHANGES.

Tickets of membership to the New York Produce Exchange have been quiet at \$800.

Charles H. Van Kirk has been elected a director of the Chicago Board of Trade, vice J. B. Dutch resigned.

The work of constructing the new building for the Boston Chamber of Commerce is progressing rapidly.

The San Francisco Produce Exchange proposes to tear down the building it now occupies and erect a \$500,000 structure.

The president of the Baltimore Corn and Flour Exchange has appointed the new grain committees as provided by the rule adopted last winter.

The war against the bucket shops still continues. S. B. Johnson has been suspended from the privileges of the floor of the Chicago Board of Trade for a year, for signaling quotations to outsiders.

The Winnipeg Board of Trade's committee of grain examiners for the ensuing crop year is composed of the following gentlemen: R. P. Roblin, J. A. Mitchell, N. Bawlf, S. A. McGaw, and S. Spink.

The Toledo Produce Exchange has voted to request the statistician of the Agricultural Department to issue his report to the press at 12 o'clock midnight of the 10th, instead of 4 o'clock P. M., as formerly.

The New York Stock Exchange has obtained absolute control of the Commercial Ticker, and hereafter it will run its own service. This is supposed to mean a war of extermination against the bucket shops.

The annual election of officers of the San Francisco Produce Exchange held recently resulted in the choice of the following officers: Directors—Barry Baldwin, president; Jackson Hart, vice-president; Jas. W. Sperry, treasurer; G. W. McNear, H. A. Mathew, L. Kauffman, C. B. Stone, Geo. P. Morrow, Paul Keyser. Committee of Appeals—E. R. Lilienthal, Robert Balfour, S. Koshland, E. Mehret, T. J. Parsons.

The Boston Chamber of Commerce believes and claims that a bill of lading properly made out and signed is a proper and a reasonable and a safe negotiable security, and that no public carrier has a right to stamp it "non negotiable," and has passed a resolution to that effect. It also resolved that no form of bill of lading will be acceptable to this body which does not recognize that it is incumbent upon the carrier to receipt for and deliver what it receives.

The Winnipeg Grain Inspector's report for the year ending June 30, shows that during the year 2,207,400 bushels of wheat were inspected at that point. Of this, 50,050 bushels graded extra Manitoba hard; 860,600 bushels No. 1 hard; 643,500 No. 2 hard; 38,350 bushels No. 1 Northern; 251,550 No. 2 Northern; 22,750 No. 3 Northern; 18,850 No. 1 White Fife; 105,300 No. 1 rejected, and 216,450 rejected.

The barley crop of this country amounts to about 66,000,000 bushels (this year's estimate), and imports from Canada amount to about 10,000,000 bushels. The beer brewed in 1888 and 1889 was 25,098,765 barrels. The barley used for malting purposes was about 40,000,000 bushels. Of this 40,000,000 we will estimate that 10,000,000 are imported from Canada, 8,000,000 are raised in New York state, and the remaining 22,000,000 bushels used are supplied by the West and California. There remains a surplus above the brewers' wants, which is used for feeding purposes, of 36,000,000 bushels.

THE AMERICAN ELEVATOR AND GRAIN TRADE.

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ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., AUGUST 15, 1890.

CARS AND SHIPPERS.

Several states have a law governing the distribution of cars which provides that cars shall be divided equally among the applicants and not according to their wants. Thus, if a large shipper applies for 50 cars, another for 20, and another for 2, and the railroad company has only 6 cars, each applicant will receive 2 cars. This is a direct discrimination in favor of the small shipper. As the law was passed by the farmer element, it could not be expected to be a just law. Minnesota and Dakota both have such a law, and the farmers of the former state have recently passed a resolution demanding the maintenance of this law. Cars should be distributed among applicants according to their wants, and not according to the number of applicants. The large shippers represent the interests of the farmers who wish to sell on their home market. The small grain shipper represents only himself. If the individuals are to be taken into consideration, the railroads should be allowed to take into consideration the great number of farmers the large shipper is shipping for, and give him cars accordingly.

AMERICAN CORN IN EUROPE.

One of the most surprising things to an American visiting Europe is the senseless prejudice existing nearly everywhere against Indian corn as human food. Europe, it is true, takes quite a large percentage of our surplus corn; but almost all of it is for fodder for cattle. If food were cheap in Europe, one would not be particularly struck with a preference for this or that article of diet; but when we remember that with millions of the poor of Europe the food question is of the most serious moment, and never absent from domestic calculations, the average American is apt to grow impatient at the unreasoning prejudice which rejects wholesome and cheap food because it is also fed to cattle. Americans surveying the pitiless poverty of European working people cannot help feeling that an article of diet which is eminently prized here by people above the pinching want of other lands, is quite good enough for those with whom the chief question is ever that of getting enough to eat. And yet,

Europeans will pay high prices for low grade American wheat flours and rye mixtures, and reject with disdain the splendid products from our Western and Southern cornfields.

We will not enter into the causes of this prejudice and the means by which the foreign agriculturist keeps it alive. That it will some time pass away is assured. Indeed, some investigators say that even now, American corn is vindicating itself as an article of human food. If this is so, Europeans must have taken lessons in cookery. The first thing to do is to teach them how to use cornmeal and corn flour. When the ground corn product once becomes a favorite, as it will eventually, the European food question will be half solved and the American agricultural question equally simplified. Europe ought to take all the surplus corn we can raise, as food for her people as well as their cattle. Some day she will do so.

A STATE OF SIEGE.

For six months the little town of Warren, Ind., has been in a state of peaceable siege. The F. M. B. A. has been boycotting the town for that length of time. The lodges of that association demanded that the storekeepers sell goods on a margin of ten per cent. Considering that this was not an adequate return for furnishing both capital and labor, the merchants refused, and a boycott on the town and everything and everybody in it was the result. The country determined to get along without the town, and make the whole question one of endurance.

Well, the boycott, or siege, or whatever it may be called, has been lifted, and farmers once more patronize Warren. They found plenty of storekeepers at crossroads who were willing to sell goods on the terms dictated by the F. M. B. A. Somehow or other the experiment has not been satisfactory to the farmers. Reason has returned and the lesson has been learned that it is a poor way to right wrongs, real or fancied, by inflicting hardship on others.

THE FARMER AND HIS WOES.

The price of corn and oats is nearly double what it was a few months ago, and the price of wheat and other farm products is greatly advanced, yet farmers under the supervision of demagogues and unprincipled agitators continue to pass resolutions against the tariff, commercial exchanges, railroads, elevator men and everything else that their rulers suggest.

The policy of the farmer agitator, like that of the labor agitator, is to try to secure a following by persuading his ignorant subjects that all their friends are false to them and that he alone is a true friend to them. Mr. Donnelly wanted to be governor of Minnesota and tried this scheme, but it did not win.

However, he and his fellow agitators, induced the farmers to pass resolutions against everything they could think of, among which was the following resolution:

As producers we demand free and open markets for our grain and that the railways shall receive and ship grain as they receive and ship other commodities for the owner to its destination; that the grading of wheat at country stations be abolished; that the right to establish side tracks to connect grain warehouses and the equal use of warehouses and the equal use of cars shall in no way be abridged.

Should one unacquainted with the facts read the above he would naturally suppose that our grain markets were fenced in and only favored parties allowed to enter and sell their goods. He would also imagine that the unfortunate wretches who were thus barred out were also unable to ship their produce over the railroads. The producers in no other part of the world have as free and open a grain market as the American farmer, and in no other part of the globe is grain transported to market as cheaply and quickly as in the United States, but like the old mountaineer from Buncombe county, the demagogues felt that they must do something.

The grading of wheat at country stations in Minnesota is not compulsory, and what is more, any individual farmer can abolish the system so

far as he is concerned whenever he desires to do so. Whenever a farmer's grain is graded at country stations it is done for his accommodation, so that his grain can be stored in an elevator with other grain until he wants to sell. If he does not like it let him pay to have his grain put in a special bin, or else keep it at home until he wants to sell. The railroads should by all means be compelled to lay side-tracks to every farmer's back door, so that he can ship a full carload of grain every year, if he wants to, without hauling it to town.

STATE WAREHOUSES FOR PRODUCERS' GRAIN.

At a recent meeting of farmers in Minnesota a resolution was passed demanding the maintenance of the present freedom of traffic law, the present grain laws, and the law for the distribution of cars and the erection by the state of public warehouses where the producer shall store his grain unmixed in a special bin.

This is a very fair sample of the resolutions usually passed at meetings of farmers. The last part of it, demanding the state to erect warehouses where the producer shall store his grain, is an unusually good specimen. They ought to have included potatoes and other food products as well, and then commanded the state to erect buildings on their farms for storing their machinery and to protect their starving stock from the heartless north wind. They ought to have made their demands large enough to have secured at least the attention of the state. It has no time to give to penny beggars.

These warehouses are to be public, yet only producers are to be allowed to store grain in them. The miller, the grain dealer, and the poor man who has to buy grain for his cow, his horse or his chickens, cannot store grain in them. The farmer is the only part of the public that is worthy of any consideration.

The state is not asked to provide warehouses for the miner, the lumberman, the miller, the manufacturer, and the distributor of supplies, because the agitators cannot drive them in herds as they do the farmers and induce them to make such fools of themselves. States cannot discriminate in favor of one class and against the rest of their inhabitants by building warehouses for the exclusive use of that class. The courts of no state would decide such a law constitutional.

One of the striking provisions of this demanding resolution is that the producer shall store his grain unmixed in a special bin. So all the producers must store their grain unmixed in these warehouses, and in special bins. Such a state of affairs will prove very aggravating, and we doubt not that the "down-trodden" farmer will revolt against such oppressive laws.

WEIGHTS AT BUFFALO.

Mr. Junius S. Smith, weighmaster of the Merchants' Exchange of Buffalo, in a letter which we print elsewhere, takes exception to a brief remark in our last issue respecting weights at that point. Mr. Smith has been weighmaster at Buffalo for seventeen or eighteen years, and claims that by the system which has been adopted there the shortages have been reduced 80 per cent. Clearly the old system was faulty, and the shortages directly traceable to Buffalo, if a mere change of system resulted in lopping off four-fifths of the shortages. Perhaps a diligent hunt would result in finding the source of the other fifth. At any rate, if the present system at Buffalo is perfect, absolutely and undeniably perfect, it proves that in the past Buffalo made four times as many mistakes as the points that shipped to her.

But the point we insist on is this: In handling so many million bushels of grain, nearly sixty million all told, mistakes should very nearly balance each other. Yet in every item the shortages were greater than the overweights. And it has always been so at Buffalo. Of course some cargoes are overweight, and are so reported, but the rule is that cargoes are short. The imperfection

of the system followed at Duluth, Chicago or Milwaukee will not account for this fact; for the very imperfection of the system and human liability to err would tend to equalize the shortages and overweights in such vast quantities of grain. Until we see some instances when the overweights and shortages in wheat or corn or oats in a whole year's shipments were about the same, we shall decline to believe in the infallibility of Buffalo. Moreover, Buffalo having confessed to beating other ports for years to the extent of 80 per cent., we shall entertain a suspicion that the other 20 per cent. belongs somewhere in the vicinity.

The statement that the vessel owners have to bear the shortage is true; but we fail to see how that touches the question at all. The almost inevitable shortages at Buffalo have led to endless trouble and contention between the vesselmen and the shipping elevators. Vessels have lost the earnings of a whole trip by shortage at Buffalo, even after the greatest care had been taken in weighing at point of departure.

THE CROPS.

We have nothing to add to the crop news of the day, which seems to be as varied and as unreliable as the most partisan bull or bear could desire. When all is said and done, the Government report is probably as fair and complete as any. According to this, we will have this year about 400,000,000 bushels of wheat, 1,600,000,000 bushels of corn, and 570,000,000 bushels of oats. We believe high prices will rule. The world seems short of breadstuffs this year. Whether facts justify the vigorous bull campaign now raging, each must decide for himself.

EXPORTS OF BREADSTUFFS.

Our exports of breadstuffs the first month of the new crop year make a very fair showing. According to the report of the Bureau of Statistics we exported during July breadstuffs valued at \$10,733,669, against \$9,806,945 for July, 1889, and for the first seven months of 1890 our exports amounted to \$92,773,352, against \$67,036,654 for the same period of 1889.

During the month 4,366,554 bushels of wheat valued at \$4,000,918 were exported, against 3,241,395 bushels valued at \$2,729,363 for July, 1889. Of corn, 6,662,044 bushels valued at \$2,979,137, were exported, against 6,429,429 bushels valued at \$2,830,571 for July, 1889.

The barley exports were less than for the preceding July, being 30,195 bushels valued at \$17,057, against 47,632 bushels valued at \$23,325. There was also a falling off in the rye exports, only 116,791 bushels valued at \$69,255, being exported during July, against 188,355 bushels valued at \$97,054 for July, 1889.

The exports of oats, however, were unusually large for July, 585,448 bushels valued at \$209,806 being exported, against 129,861 bushels valued at \$40,767 for the preceding July.

THAT UNIFORM BILL OF LADING.

We have not the space for even a condensed resume of the literature on the now famous "Uniform Bill of Lading." Nor have we the command of language to properly and adequately designate this latest attempt of the railroads to evade their just responsibility to shippers and hamper commercial transactions.

The railroads are simply at their old game of attempting to limit or nullify their liability as common carriers. Different states have laws on this subject, and state exactly what the liability of common carriers is. They state what a bill of lading is, and yet the railroads by extorting a one-sided contract from shippers, hope to escape their well-defined liability to shippers as common carriers. Courts have and ought to set aside such contracts. The shipper is really at the mercy of the road; and it is against public policy to enforce a contract which is virtually extorted

because one of the parties to it cannot help himself.

A bill of lading is, and ought to be, negotiable. Nor can the roads be a law unto themselves by refusing to accept common law liability, in addition to ignoring statutory requirements. Shippers ought to fight for a reasonable, fair bill of lading; but whether they get it or not, does not alter the legal status of the case. The roads are liable, whether their bill of lading says so or not.

WHAT IS A CORNER?

An important decision was rendered recently by the Superior Court of Cook county, Ill., in the case of Foss, Strong & Co., against a syndicate which tried to run a corner in May corn two years ago. Whether the commission merchants were cognizant of their purposes or not, all their purchases were of cash corn and May options. In the month of May large receipts and decreased demand for shipment caused the price to fall, and the agents sold out the syndicate's holdings at a loss of \$81,154.89. To recover this amount the agents sued the members of the syndicate. The latter straightway set up the defense that they, the syndicate, had entered into an agreement to commit the crime of cornering, in violation of the statutes of the state, and therefore their contracts with Foss, Strong & Co. were void.

It always seems to a rational mind that such a defense is stultifying; and while it does not seem good morals that a man should escape the consequences of his act by pleading that his act is a crime, yet the decision of the court, in which a corner is defined, seems equally bad morals. The court said: "To constitute the offense of cornering the market, then there must exist an intention to get control of the market, not partially, but wholly, and thus, by force, make other dealers settle with those having control of the market for the commodity at an unreasonable and unnatural and fictitious price, regardless of the true value of such commodity, thus causing injury to others and to the public."

If this is a sound construction of the law, the law needs amending. Unquestionably it would not be equity that the people entering into an agreement to corner the market should be allowed to saddle their losses on their brokers; but the definition of a corner enunciated above does not recognize that attempted corners are often as disastrous to legitimate business as the completed "corner," which at the most can last but a short time, while an attempted corner may demoralize markets for weeks and months.

THE NORTH DAKOTA WAREHOUSE LAW.

There is a curious tangle in North Dakota on account of the new warehouse law of that state. The greater part of this piece of legislation is given on another page. The infinite wisdom of the people who framed it forgot the old proverb about leading a horse to water. In short, the elevator men simply refused to receive grain for storage. Of course their action is stigmatized as a "combine," and Senator Call of Florida has introduced a bill to inquire whether elevator companies are refusing to receive grain for storage. The simple fact is, that the law renders it well-nigh impossible to do a storage business. The elevator men are willing to do business on any reasonable basis; but as the law stands they cannot afford to have their houses made public warehouses, which they would become if they received grain on storage. Their only true policy was to refuse to receive grain at all.

Formerly the farmer could store his grain fifteen days free. This was the custom with the elevator men; and for subsequent storage only a small fee was charged. This would appear reasonable enough, but it did not satisfy the solons, and they went to work to "control" the elevator business. Had the elevator men made an actual combine and bought the legislature, they could have designed no better law to render their "combine" perfectly solid than the law which the rural solons supposed would come down on the

elevator men like a lightning stroke. As it is now, the elevator men are simply buyers. The farmer cannot store his grain and wait for prices to suit him. He must sell it or keep it. Did short-sighted selfishness ever defeat itself more thoroughly? "Curses come home to roost."

As the matter stands, the elevator men are masters of the situation. The crop is almost ready, and the fact is realized that an egregious blunder was made when the warehouse law was passed. As we write, the railroad commissioners are in St. Paul trying to patch up some sort of an arrangement. It is probable that an agreed case will be made up and the law tested in the courts. The law is or ought to be unconstitutional. Anyhow, it pays to be fair, and the farmers of North Dakota will probably remember this the next time they arrange to "control" the elevator business. It is at least to be hoped for that in looking after their own interests they will not ride rough shod over the rights of others.

The malsters and owners of elevators used in handling imported barley in the East are making a strong effort to prevent an increase in the duty on barley. They claim that if a prohibitive duty is placed on barley, the many millions invested in Eastern malting houses will be a total loss, as they would be unable to compete with houses which are located in barley growing states. Eastern farmers should take advantage of the opportunities offered and produce barley to suit the buyers.

It has been hinted, but not openly charged, that the AMERICAN ELEVATOR AND GRAIN TRADE is not overly zealous in defending Chicago dealers and methods. This journal is devoted to the elevator and grain trade interests of America, and not to the trade of one, two or three cities. We shall use our influence to secure just treatment for all. If the dealers, inspectors or elevator men at this or any other terminal do not treat the country shippers with fairness, let them expect our opposition, and vice versa.

BRADSTREET'S of Aug. 8 says: "The total of Indian corn stocks out of farmers' hands and available has finally fallen below the aggregate reported on Jan. 1 last, and appears with the current rate of consumption to promise a steady decline. The decrease in stocks of oats, too, is larger for July, 3,663,000 bushels, against 1,682,000 in June last. Barley stocks decreased 124,000 in July, against 128,000 in June, and stocks of rye 172,000 bushels last month, as compared with 175,000 the month before.

RECENT reports state that Jay Gould has secured control of the United Elevator Company of St. Louis, and that the eleven elevators owned by the company would be operated in the interests of the Missouri Pacific and other Gould properties. If Jay desires to increase the grain shipments over his roads entering St. Louis let him offer free storage for the first seven days after the grain has arrived in St. Louis, and he will surely get more than his share of the traffic. If the report is true, which we doubt, Mr. Gould will have to handle the trade very carefully or St. Louis will have a number of new elevators.

AFTER a long and tedious fight, the Chicago Board of Trade and the elevator men have compromised their differences, and for the rest of the year they will live in harmony. Grain will be stored at rates a little in advance of those ruling last year, and the directors of the Board of Trade will not try to run the business of the elevator men. However, one clearing house is to be separated from a public elevator—a very commendable change. The only advance in rates will be on the ten days succeeding the first ten days, the new rate being one-third of one cent. The old rate was one-fourth, and the elevator men wanted to make it three-eighths. St. Louis and Milwaukee will probably adopt the same rates the Chicago men have agreed to.

Editorial Mention.

KANSAS does not anticipate a corn crop of more than 75,000,000 bushels.

THE directors of the St. Louis Merchants' Exchange have adopted a rule prohibiting private wires on the floor after Sept. 1.

IN figuring up the possible prices of food grains, it must not be forgotten that potatoes, or rather the scarcity of them, necessarily cuts a figure.

IN Illinois the area of winter wheat harvested was in round numbers 1,300,000, divided as follows: Northern division, 65,000 acres, yield 960,000 bushels; central division, 625,000 acres, yield 7,500,000; southern division, 610,000 acres, yield 6,100,000. Total for the state, 14,560,000 bushels.

DURING the last few months the price of silver on the London market has advanced nearly 17 cents an ounce, and the prospects are that it will go higher. The advantage which the Indian exporter had over American exporters is disappearing, and England will have to pay more for her wheat and cotton.

ELSEWHERE is given an article on the wheat tester, taken from a farmer's journal, which all dealers will do well to read; and when farmers kick against the using of the tester show it to them. The tester is all right, and farmers who market clean, plump, sound grain desire to have their grain tested.

AMONG our communications in this issue, F. R. Morris ably defends his brother dealers from imputations made by a former correspondent. His points are well taken. Country buyers are just as anxious to rid the trade of the abuses as any other class, if not more so, for they suffer more from them than any other class.

IT is seldom claimed that elevator men were born lucky, yet there are some who are exceedingly fortunate at times. As much can be said of Callaghan Bros. of Louisville, Ky., whose elevator was damaged by the cyclone. They were the only losers by the cyclone holding a cyclone insurance policy, and that would have expired the next day at noon.

WESTERN railroad companies have agreed to reduce the rate on wheat from the Missouri River to Chicago to 20 cents per 100, and the rate on corn to 18 cents per 100 pounds. The emergency rates west of the Missouri River are to be abolished. These rates will go into effect as soon as the tariff can be arranged and the legal ten days' notice can be given.

THE Illinois crop report for August gives the condition of the corn crop in the northern division at 68, in the central at 79, and in the southern at 54, making the state average about 67. The lowest conditions are as follows: Harlem, 20; Effingham, 25; Pope, 30; Johnson, 38; Richland, 32; Washington, 36. In the southern division there has been little or no rain since May 1.

THE Farmers' Alliance at Eden, on the Milwaukee Road, one mile from the state line in South Dakota, have asked the Iowa Railroad Commissioners to compel the road to give them place to erect an elevator along the track, and failing there, to order it at Austin, just inside the Iowa line. The commissioners reply that when the alliance will put itself inside of Iowa they will consider the matter. The farmers of that

district are exceedingly wise. If they keep themselves before the public they will all be elected to the Presidency—when all other men are dead.

MISSOURI'S Grain Inspection Department has adopted new standard grades and the Merchants' Exchange of St. Louis has decided to use the same standards in East St. Louis. We publish the grades in this issue.

INCREDIBLE as it may seem, it is reported that Schroeder's system of bucket shops throughout Missouri, Nebraska and Western Iowa has "busted," and that Schroeder offers to settle on a basis of 50 cents on the dollar. It has been generally supposed that a bucket shop that could even pay 25 cents on the dollar would not suspend as long as it could find any "suckers."

THE *Market Record* estimates the stock of wheat in the country elevators of Minnesota and the Dakotas at 232,000 bushels, against 317,000 a week ago. Last year at this time the country stocks were about 150,000 bushels larger. According to the above figures the total stocks visible in the Northwest amount to 7,261,000 bushels—a decrease of 1,006,000 as compared with last week.

THE flax acreage in the Northwest will undoubtedly be larger this year than for any preceding year. The farmers who raised it last year received more from an acre for the seed alone than those who raised wheat, and this induced many of them to put in more flax this year. The yield per acre will not be as good as last year, but the crop will exceed last year's crop by about 2,000,000 bushels.

CANADIAN grain dealers have finally induced the Dominion Government to grant to shippers of oats via the canal the same rebate of canal tolls as is allowed on other grain. The grain dealers of Montreal have worked hard and tried a number of schemes in hope of attracting American grain for export via that port, but in vain. Even the rebate of tolls does not bring the much wished for trade.

THE Inter-State Commerce Commission wants control of all the vessels of the great lakes. In other words the commission wants to make a greater show of itself. On a number of roads it has not even tried to enforce the law, and the managers have informed the commission that they could not observe the requirements of the law. In the face of this failure they ask for more territory to conquer.

REPORTS from the Indiana Agricultural Board indicate a wheat yield of 65 per cent. of the average crop, and corn will mature half a crop. The flat lands in the western part of the state have been drowned out, and the eastern and northern portions have suffered from drouth and extreme heat, causing the stalks to burn out at the roots. Potatoes and other ground crops are suffering with the corn.

IN regard to the wind and hail storm which recently passed through Manitoba, the *Commercial* of Winnipeg says: Altogether the storm was the most destructive which the province has ever suffered from. It would be very difficult to estimate closely the total damage done, but it is placed by different authorities at from 15,000 to 50,000 acres. The medium between these will probably be near the mark.

THE yield of oats per acre in the northern division of Illinois is reported at 29 bushels, or about three-fourths of that of last season. In the central division 22 bushels per acre is the average yield. In the southern division of Illinois the crop is but little better than a failure, and did not pay the expense of harvesting. The estimated area seeded to oats this spring is

3,250,000 acres; the average yield per acre for the state is 18 bushels, making a total yield of 58,500,000 bushels as compared with the yield of last year, when there were 142,000,000 bushels of oats harvested.

WE have received a number of contradictory reports regarding the reduction of grain rates by the Kansas railway commissioners, but the latest is that the commission had ordered a reduction of 33 per cent. in the local tariff on grain. The commission will experience considerable difficulty in enforcing such a heavy reduction. If it had ordered a reduction of 15, or even 20, per cent., the railroad companies might have granted it.

THE Chicago & Alton proposes to reduce the rate on corn and oats from Kansas City to Chicago from 20 to 15 cents per 100 pounds, and that on wheat from 22½ to 20 cents. The distance from Kansas City to Chicago is not half the distance from Chicago to New York, yet the freight rate on the same goods has been the same. Our Western roads will pass into bankruptcy if they are not more careful in making reductions.

THE Winnipeg Board of Grain Examiners are collecting samples of grain from all districts of Manitoba and the territories, by which they will be guided in establishing standard grades for the crop of 1890. Missouri's chief grain inspector is said to have made preparations for establishing grades from samples of wheat grown in the South long before the crop of his own state had matured. There is a striking difference between these two ways of establishing standards.

THE recent break in the locks of the Sault Ste. Marie's Canal has attracted the attention of the entire country to the greatest canal in the world, and also to the way the work of constructing new locks has dragged along, owing to the stingy, piecemeal appropriations Congress has voted for the continuance of the work. The bill appropriating a sufficient amount to complete the work will probably be passed, now that political eyes are opened, and the work will be pushed to completion.

THE Illinois Central has modified its order of June 9 so that shipments of corn consigned to Eastern lines may remain on the track twenty-four hours after arrival, subject to the orders of Chicago shippers. At the expiration of the twenty-four hours, if no orders are received, the corn will be placed in the elevator. The railroad company should in such cases place the grain in a special bin and give the shipper five or six days' free storage, as in the case of other merchandise received.

THE Chicago Board of Trade wants the government crop report issued at 1 p. m. instead of 4 p. m., and the Merchants' Exchange of St. Louis wants it issued at midnight. The object is to protect law-abiding exchange members against injurious manipulation of the markets. It would be to the advantage of all dealers to have it given out at midnight, for then it would appear in all the morning papers of the country, and country dealers would see it almost as soon as those on the commercial exchanges.

THE monthly Michigan crop report says that reports from 800 correspondents give the average yield in the southern counties at 14.06 bushels per acre, the central 13.78, the northern 14.55 bushels. The threshers report an excess of the above, viz., 18.66 bushels in the southern, and 19.60 in the central. The quality is reported fully up to the average, only 28 out of 512 correspondents reporting it bad. The number of bushels reported marketed in July was 904,841, and for the year ending Aug. 1, 14,917,271. Oats yield in the southern counties 29, central 31, and northern 27 bushels per acre. The weight is light and the crop not more than three-fourths of an average. The hay crop is fully up to the average and was secured in prime condition. The

condition of corn is 73 in southern counties, instead of 91 July 1. It is 92 in the central, and 101 in northern counties.

It looks as if the long expected reaction in grain prices had come. Any hope of such prices as obtained twenty years ago are doubtless fallacious; but it is possible that we are on the border of an era of higher prices that may continue for some time.

MR. J. W. RUSH of the *Miller's Gazette and Corn Trade Journal*, London, Eng., in a paper read before the National Association of British and Irish millers, says of the world's wheat crop, that according to the figures which he has been working upon for some time, there would result a deficiency in the production as compared with the needed consumption, of 10,770,000 qrs.

THE E. P. Dickey Fanning Mill Company of Racine, Wis., who manufacture the celebrated "Dickey" Warehouse Mills for cleaning all kinds of grain and seeds, are offering their latest improved mills this fall at cost, for the purpose of advertising and extending their business. They warrant every mill. They ask parties who are looking for the best mill at a bargain to write them at once.

THE Pennsylvania road is fitting up a trial car on the system of R. M. Pancoast of Camden, N. J., with a view of its adoption, if the car is up to its promise of positively ventilating the load. It is claimed that so far as grain is concerned this car will preserve it perfectly from heat and dirt. Now if somebody will invent an attachment that will prevent shortage in carload lots of grain, the country, especially shippers, will rise up and call him blessed.

ACCORDING to the Asmoth Malt and Grain Company of Milwaukee, the barley crop of 1889 shows not only a largely reduced acreage but the yield per acre as well will fall short of that of 1889. The heaviest acreage loss occurred in California, large stretches of lowlands had been rendered totally unfit for cultivation, owing to the heavy inundations of last winter; on high ground, however, the yield there is excellent in every respect. Canada's extraordinary loss of acreage is variously reported at from 25 to 50 per cent. It is expected that the year 1890 will be one of higher prices, say at least from 15 to 20 per cent. above those of last year.

AFTER a number of trials, James W. Sykes, the Chicago warehouseman, who defrauded the Merchants' Loan and Trust Company and other Chicago banks out of a large sum of money, by issuing fraudulent warehouse receipts, has been acquitted on a technicality. So after languishing in jail over a year, and fighting the Merchants' Trust Company in six or seven trials, Mr. Sykes is free from the prosecution of this company. However, it is reported that one of the other banks which loaned him money on fraudulent warehouse receipts will prosecute him. Although no conviction has been secured under the new Illinois Warehouse Law, its constitutionality is undoubted. All violators will not be able to escape upon a technicality.

EVERY grain dealer and miller ought to know exactly what he is buying; and the wise dealer will not always trust his judgment in such a matter. In a crop like the present, the eye is often deceived. A dealer down in Indiana told us that he lately bought some wheat which was delivered in sacks, the whole amount of which, by measure, ought to have been 60 bushels. It weighed 50 bushels and 50 pounds, and on cleaning preparatory to milling, this amount was reduced to 36 bushels. The balance was chaff and trash. Of course this is an exceptional case; but the wheat itself is poor in most localities, and a tester is the thing to use on it. The improved Grain Tester, advertised in this issue by the Henry J. Deal Specialty Company of Bucyrus, Ohio, has enjoyed

a wide popularity and a very large sale. Some large firms have ordered as many as a dozen for their buyers. Millers and grain men will find the tester an invaluable help in the purchase of grain, especially when it is deceptive to the eye, as it so often is.

THE railways of the country have been and are at this moment discriminating outrageously against oil shippers and in favor of the Standard Oil Company. The continuance of violations of the Interstate Commerce Law and the evasion of its spirit by the railroads, is inviting harsh measures which the railways may rue.

It has been decided by several different courts that a railway company is liable for damage to perishable goods which it neglects to deliver within a reasonable time after receiving same. Grain shippers who suffer loss by the delay of Southern roads can surely obtain damages if they will take the matter to the courts. New Orleans and other Southern ports will never become large exporters of grain until facilities for handling it are provided. Northern shippers who lost heavily by last winter's shipments are not likely to try the experiment again until they are assured that their grain will be forwarded promptly, and not be allowed to stand along the road and spoil, as was the case last year. By a little work the New Orleans Board of Trade and Southern roads can greatly increase the grain exports of that port.

THE all-knowing editor of the *Northwest Farmer and Breeder* attributes an editorial in our July issue, on the "Distribution of Cars," "to a zeal that is blinded by prejudice, or a willful perversion of facts, to gain some point. That it is false, every grain farmer in the Northwest who reads it, will at once agree." We said nothing about the Northwest or any other district, and if the editor of the *Farmer* was not so blinded by prejudice, willing, nay, anxious to pervert facts, and desirous of convincing his readers that he was working for their good, he would not have made such a narrow-minded statement regarding the article as he did. It is not false. It is true, and we know it. If our critic will take the trouble to make inquiries in Kansas and Nebraska he will find that a number of elevators suffered just such injustice last winter and spring. Farmers' elevators were slighted as well as others. The Northwest does not constitute the whole world.

MESSRS. HUNTLEY, CRANSON & HAMMOND, Silver Creek, N. Y., manufacturers of the Monitor Separators, Cranson Scourers, Buckwheat, and Corn Machinery, etc., have just scored another big victory for their grain cleaners.

The Santa Fe Railroad Company have contracted with Messrs. Barnett & Record of Minneapolis, Minn., the well-known elevator builders, whose high reputation in this line needs no comment, to build for them a 500,000-bushel grain elevator at Kansas City, Mo. This is to be a model cleaning house in every respect. Great care has been exercised in the selection of the machinery, and none but the best considered. Mr. B. F. Ryer, 63-65 South Canal street, Chicago, manager of the Western branch of Huntley, Cranson & Hammond, has closed a contract with Barnett & Record to furnish this elevator with a complete outfit of cleaning machinery. The Monitor Separators are evidently coming to the front with rapid strides, and from all we can learn about the machine, it is worthy of the highest honors. It was not long since that we recorded the fact that Messrs. F. H. Peavey & Co. of Minneapolis selected these machines for their new 1,000,000-bushel cleaning elevator, the largest elevator of the kind in the world.

The grain bag boom, so confidently predicted in the spring months, has failed to materialize. Here we are in the midst of the harvest season, with grain bags at the lowest point of the year, and nearly as much probability of lightning hitting the entire remaining supply, estimated at about 15,000,000 bags, as of a boom striking anywhere in the bag line this summer.—*Country Merchant, San Francisco.*

DOTS AND DASHES.

A London grain cleaning company advertises its business and plant "to be sold as a going concern." It fails to state, however, where the concern is going.

The new wheat crop of Kansas is rapidly coming into market. The dealers pronounce the grain as first class, and especially that received from Southern Kansas.

Patentees of corn-cob pipes have been fighting each other in the United States Circuit Court sitting at Syracuse, N. Y., so the price of corn-cob pipes will soon be advanced.

During the last crop year only one appeal was made from the grading of Winnipeg's grain inspector, and then the Board of Trade examiners sustained the inspector's ruling.

W. Sobey of Jacksonville, Ill., enjoys the distinction of being the first victim of the bucket-shop law, having been convicted under its provision and sentenced to pay a fine of \$250.

The Kansas farmer who stored up corn at ten cents per bushel last year is preparing to leave his land in charge of a hired man and come to town to start a loan office. — *Wichita Eagle.*

According to the report of the Department of Agriculture and Immigration of Manitoba, the area sown in barley this year is only 66,035 acres, a reduction of 14,213 acres since last season.

During the last crop year the United States imported 124,544 tons of hay, valued at \$1,143,445, against 105,395 tons, valued at \$1,082,885 for the preceding crop year. The duty on hay is \$2 per ton.

Much corn in Delaware has been destroyed by a destructive worm that bored into the main root of the plant and sucked out its vital pieces. The drouth gave a fine opportunity to get in its destructive work.

The Wabash Road has followed the example of the Chicago & Grand Trunk and refused to adopt the new uniform bill of lading. It is understood that the Baltimore & Ohio has decided upon the same course.

The United States imported 8,048 tons of manufactured flax, 36,591 of hemp and 90,399 tons of jute during the crop year of 1889-'90, against 7,896 tons of flax, 55,835 of hemp and 88,655 of jute for the preceding crop year.

Broom corn valued at \$13,176 was exported during June, against \$13,808 for June, 1889, and during the crop year ending with June the exports of broom corn were valued at \$111,147, against \$152,542 for the preceding crop year.

Many wheat fields in the neighborhood of Milford, Mich., is said to have more or less rye growing in it. If not removed it will be the means of great injury to Michigan wheat crops, as it will lower the grade if on inspection rye is found mixed with it.

Chicago received 363 cars of spring wheat during July, against 132 cars for July, 1889. Of this year's receipts 164 cars graded No. 2, 119 cars No. 3, 66 cars No. 4, and 14 cars no grade, against 9 No. 2, 47 No. 3, 35 No. 4, and 41 cars no grade for July, 1889.

Chicago received during the first seven months of this year 720,500 bushels of flaxseed, against 284,000 bushels for the same months of 1889. The shipments for the first seven months aggregated 771,986 bushels, against 477,600 bushels for same months of 1889.

On July 24 an explosion of mill dust caused a fire on the top story of the Cook Brewing Company's malt house, Chicago. The blaze was extinguished with a nominal damage. An employee was badly burned about the hands and arms. Still mill dust never explodes. Keep exposed lights away from it.

During July Chicago shipped 276,420 barrels of flour, 1,392,307 bushels of wheat, 9,997,218 of corn, 4,777,012 of oats, 178,938 of rye, and 47,431 of barley, against 261,200 barrels of flour, 1,492,292 bushels of wheat, 8,519,243 of corn, 4,536,888 of oats, 208,796 of rye, and 28,051 of barley for July, 1889.

The first car of new barley of the crop of 1890 received at Chicago was received July 19, by Irwin, Green & Co. It was from Northern Iowa, and proved to be of very superior quality, grading No. 2. There was a great pressure among barley men for samples. If the first lot is any criterion, Chicago commission merchants will have the handling of a crop of very fine barley this year.

NORTH DAKOTA'S WAREHOUSE LAW.

The North Dakota Legislature has passed the following bill, entitled, An act to regulate warehouses, inspection, weighing and handling of grain:

SECTION 1. All elevators or warehouses located or to be located at Grand Forks, Fargo, Wahpeton and Fairmount, in this state, in which grain is stored in bulk, and in which the grain of different owners is mixed together, or in which grain is stored in such a manner that the identity of different lots or parcels cannot be accurately preserved; and doing business for a compensation, are hereby declared to be public warehouses.

SEC. 2. The proprietor, lessee or manager of any public warehouse shall be required before transacting any business to procure from the Commissioners of Railroads a license permitting such proprietor, lessee or manager to transact business as a public warehouseman under the laws of this state, which license shall be issued by the Commissioners of Railroads upon written application, which shall set forth the location and name of such warehouse, and the individual name of each person interested as owner or principal in the management of the same. If the warehouse be owned or managed by a corporation, the name of the president, secretary and treasurer of such corporation shall be stated, and the said license shall give authority to carry on and conduct the business of public warehouse, in accordance with the laws of the state, and shall be revokable by said commissioners upon a summary proceeding before the commissioners, upon complaint of any person in writing, setting forth the particular violation of law, and upon satisfactory proof to be taken in such manner as may be directed by the commissioners.

SEC. 3. The person receiving a license as herein provided shall file with the commissioners granting the same a bond to the state of North Dakota with good and sufficient sureties, to be approved by said commissioners in the penal sum of not less than ten thousand (10,000) dollars, nor more than fifty thousand (50,000) dollars, in the discretion of the Commissioners of Railroads, for each warehouse licensed in the county conditional for the faithful performance of his duty as a public warehouseman and his full and unreserved compliance with all laws of this state in relation thereto. A fee for the issuance of each license of two (2) dollars shall be paid by the person applying for the same: Provided, that when any person or corporation procures a license for more than one warehouse in any one county in the state, no more than one bond need be given.

SEC. 4. Any person who shall transact the business of a public warehouseman without first procuring a license as herein provided, or who shall continue to transact any such business after such license has been revoked (save only that he may be permitted to deliver property previously stored in such warehouse), shall on conviction by indictment be fined in a sum not less than one hundred (100) dollars, nor more than five hundred (500) dollars, for each and every day such business is carried on, and the Commissioners of Railroads may refuse to renew any license or grant a new one to any of the persons whose license has been revoked within one (1) year from the time the same was revoked.

SEC. 5. It shall be the duty of every public warehouseman to receive for storage any grain, dry and in a suitable condition for warehousing, that may be tendered to him in the usual manner in which such warehouses are accustomed to receive the same in the ordinary and usual course of business, not making any discrimination between persons desiring to avail themselves of warehouse facilities. Such grain in all cases to be inspected and graded by a duly authorized inspector, and to be stored with grain of a similar grade. And in no case shall grain of a different grade be mixed together while in store, but if the owner or consignee so requests, and the warehouseman consents thereto, his grain of the same grade may be kept in a bin by itself, apart from that of other owners, which bin shall thereupon be marked and known as a special bin. If a warehouse receipt be issued for grain so kept separate, it shall state on its face that it is in a special bin, and shall state the number of such bin and all grain delivered by a duly authorized inspector of grain. Nothing in this section shall be construed so as to require the receipt of any kind of grain into any warehouse in which there is not sufficient room to accommodate or to store it properly, or in cases where such warehouse is necessarily closed. The charges for inspection upon receipt and delivery shall be paid by the warehouseman, and may be added to the charge of the storage. The chief inspector may recover such charges of the warehouseman by an appropriate action in his name.

SEC. 6. Upon application of the owner or consignee of grain stored in a public warehouse, the same being accompanied with evidence that all transportation or other charges which may be a lien upon the grain, including charges for inspection and weighing, have been paid, the warehouseman shall issue to the person entitled to receive it a warehouse receipt therefor, subject to the order of the owner or consignee, which receipt shall bear date corresponding with the receipt of the grain in store, and shall state upon its face the quantity and inspected grade of the grain, and that the grain mentioned on it has been received into store to be stored with grain of the same grade by inspection, and that it is deliverable upon the return of the receipt properly indorsed by the person to whose order it was issued and the payment of proper charges for storage. All warehouse receipts for grain issued by the same warehouse shall be consecutively numbered, and no two receipts bearing the same number shall be issued from the same warehouse during any one year,

except in case of a lost or destroyed receipt, in which case the new receipt shall bear the same date and number as the original, and shall be plainly marked on its face, "Duplicate." If the grain was received from railroad cars, the number of each car shall be stated upon the receipt with the amount it contained; if from barges or other vessels, the name of such craft; if from team or by other means, the manner of its receipt shall be stated on its face.

SEC. 7. Upon the delivery of grain from store upon any receipt, such receipt shall be plainly marked across its face the word "Canceled," with the name of the person canceling the same, and shall thereafter be void, and shall not again be put in circulation, nor shall grain be delivered twice upon the same receipt. No warehouse receipt shall be issued except upon actual delivery of grain into store in the warehouse from which it purports to be issued, and which is to be represented by the receipts. Nor shall any receipt be issued for a greater quantity of grain than was contained in the lot or parcel stated to have been received. Nor shall more than one receipt be issued for the same lot of grain, except in cases where receipt for a part of a lot is desired, and then the aggregate receipt for a particular lot shall cover that lot and no more. In cases where a part of the grain represented by the receipt is delivered out of store, and the remainder is left, a new receipt may be issued for such remainder, but the new receipt shall bear the same date as the original, and shall state on the face that it is balance or receipt of the original number, and the receipt upon which a part has been delivered shall be canceled in the same manner as if it had all been delivered.

In case it be desirable to divide one receipt into two or more, or in case it be desirable to consolidate two or more receipts into one, and the warehouseman consents thereto, the original receipt shall be canceled the same as if the grain had been delivered from (the) store, and the new receipts shall express on their face that they are a part of another receipt, or a consolidation of other receipts, as the case may be, and the numbers of the original receipts shall also appear upon the new ones, issued as explanatory of the change, but no consolidation of receipts of dates differing more than ten (10) days shall be permitted. And all new receipts issued for old ones canceled as herein provided shall bear the same date as those originally issued as near as may be.

SEC. 8. No warehouseman in the state shall insert in any receipt issued by him any language in any wise limiting or modifying his liabilities or responsibility as imposed by the laws of this state.

SEC. 9. On the return of any warehouse receipt by him, properly indorsed and the tender of all proper charges upon the property represented by it, such property shall be immediately delivered to the holder of such receipt, and it shall not be subject to any further charges for storage after demand for such delivery shall have been made, and the property represented by such receipt shall be delivered within twenty-four (24) hours after such demand shall have been made, and the cars or vessels for the same shall have been furnished. The warehouseman in default shall be liable to the owner of such receipt for damages for such default in the sum of one (1) cent per bushel, and in addition thereto one (1) cent per bushel for each and every day of such neglect or refusal to deliver: Provided, no warehouseman shall be held to be in default in delivering if the property is delivered in the order demanded, and as rapidly as due diligence, care and prudence will justify.

SEC. 10. It shall be the duty of every owner, lessee and manager of every public warehouse in this state to furnish in writing, under oath, at such times as the Commissioners of Railroads shall require and prescribe, a statement concerning the condition and management of the business as such warehouseman.

SEC. 11. The warehouseman of every public warehouse located at Grand Forks, Fargo, Wahpeton and Fairmount shall, on or before Tuesday morning of each week, cause to be made out and shall keep posted up in the business office of his warehouse, in a conspicuous place, a statement of the amount of each kind and grade of grain in store in his warehouse at the close of business on the previous Saturday, and shall also on each Tuesday morning render a similar statement made under oath before some officer authorized by law to administer oaths, by one of the principal owners or operators thereof, or by the bookkeeper thereof having personal knowledge of the facts, to the warehouse register appointed as hereinafter provided.

They shall also be required to furnish daily to the said register a correct statement of the amount of each kind and grade of grain received in store in such warehouse on the previous day, also the amount of each kind and grade of grain delivered or shipped by such warehouseman during the previous day, and what warehouse receipts have been canceled, upon which the grain has been delivered on such day, giving the number of each receipt and amount, kind and grade of grain received and shipped upon each, also how much grain, if any, was so delivered or shipped, and the kind and grade of it for which warehouse receipts had not been issued, and when and how such unreceipted grain was received by them, the aggregate of such reported cancellations and delivery of unreceipted grain corresponding in amount, kind and grade with the amount so reported delivered or shipped. They shall also at the same time report what receipts, if any, have been canceled and new ones issued in their stead as herein provided for, and the warehouseman making such statements shall in addition furnish the said register any further information regarding receipts issued or canceled that may be necessary to enable him to keep a

full and correct record of all receipts issued and canceled, and of grain received and delivered.

SEC. 12. It is hereby made the duty of the secretary of the Commissioners of Railroads to act as register in accordance with the spirit and intent of section eleven (11) of this act.

SEC. 13. Every warehouseman of public warehouses located at Grand Forks, Fargo, Wahpeton and Fairmount shall be required during the first week in September of each year to publish in one or more of the newspapers (daily, if there be such) published in the city or village in which such warehouse is situated, a table or schedule of rates for the storage of grain in his warehouse during the ensuing year, which rates shall not be increased during the year, and such published rates, or any published reduction of them, shall apply to all grain received into such warehouse from any person or source, and no discrimination as to rates shall be made directly or indirectly, by such warehouseman for the storage of grain. The maximum charge for storage, insuring and handling of grain, including the cost of receiving and delivering, shall be for the first (1st) fifteen (15) days or part thereof one and one-half (1½) cents per bushel, and for each fifteen (15) days or part thereof after the first fifteen (15) days one-half (½) cent per bushel, and for continuous storage between the fifteenth (15th) day of November and the fifteenth (15th) day of May following, not more than four (4) cents per bushel.

SEC. 14. It shall not be lawful for any public warehouseman to mix any grain of different grades together, or to select different qualities of the same grade for the purpose of storing or delivering the same. Nor shall he attempt to deliver grain of one grade for another, or in any way tamper with grain while in his possession or custody with a view of securing any profit to himself or any other person. And in no case, even of grain stored in a separate bin, shall he be permitted to mix grain of different grades together while in store. He may, however, on request of the owner of any grain stored in a private bin, be permitted to dry, clean or otherwise improve the condition or value of any such lot of grain; but in such case it shall only be delivered as such separate lot, or as the grade it was originally inspected when received by him, without reference to the grade it may be as improved by such process of drying or cleaning. Nothing in this section, however, shall prevent any warehouseman from moving grain within his warehouse for its preservation or safe keeping.

SEC. 15. All persons owning property, or who may be interested in the same, in any public warehouse, and all duly authorized inspectors of such property, shall at all times during ordinary business hours be at full liberty to examine any and all property stored in any public warehouse in this state, and all proper facilities shall be extended to such person by the warehouseman, his agents and servants for an examination, and all parts of the public warehouses shall be free for the inspection and examination of any person interested in property stored therein, or of any authorized inspector of such property. And all scales used for the weighing of property in public warehouses shall be subject to examination and test by any duly authorized inspector, weighmaster or scaler of weights and measures, at any time when required by any person or persons, agent or agents whose property has been or is to be weighed on such scales. The expense of such test by an inspector or scaler to be paid by the warehouse proprietor if the scales are found incorrect, but not otherwise. Any warehouseman who may be guilty of continuing to use scales found to be in an imperfect or incorrect condition by such examination and test until the same shall have been pronounced correct and properly sealed, shall be liable to be proceeded against as hereinbefore provided.

[TO BE CONTINUED.]



J. S. Harshman, junior partner of S. R. Harshman & Bro., millers and grain dealers at Harshman, Ohio, has sold his interest in the business there and gone into the grain and flour business for himself at Eon, Ohio.

Lieutenant-Governor Jones, "He Pays the Freight," of Binghamton, N. Y., had a narrow escape from drowning while trying to ford a creek near his home recently. The current was quite rapid and the water much deeper than the lieutenant-governor thought, and he soon found himself completely submerged. The governor's scales are standard and not fishy, but he was nevertheless able to swim out.

The Baltimore Journal of Commerce says the returns from the thrasher indicate a yield of wheat in Maryland and Virginia greatly below what the growth of straw warranted, and far below what last year's average produced. It adds: "Dealers and farmers are unanimous in their opinion that the eastern shore counties of Maryland will yield from one-half to three-fourths of a crop—the latter figure being the outside estimate, many placing two-thirds as the maximum figure—while the western counties, in which the promise was so flattering, the crop is so spotted and irregular that the thrasher alone will be able to decide the yield."



ELEVATOR AND GRAIN NEWS

Omaha, Neb., wants another elevator.

An elevator is badly needed at Kingston, Ont.

The flax mill at Marion, Dak., is now completed.

Koller & Co., will build a brewery at Orting, Wash.

A broom factory has been built at Gordonsville, Va.

A large brewery will be built at West Berkeley, Cal.

W. P. Smith is building an elevator at Griswold, Man.

E. Hess, grain dealer of Chicago, Ill., has suspended.

A broom factory has been started at Gordonsville, Va.

Lang & Tediman will build a brewery at Egan, Mont.

A. W. Cowan will build a rice mill at Burgaw, N. C.

A grain elevator will probably be erected at Alexandria, La.

The Farmers' Alliance will build an oil mill at Millen, Ga.

A brewery will probably be built at Huntington, W. Va.

W. E. Winkelmeyer of Macon, Ill., will erect a brewery.

T. B. Ripy intends to erect a new distillery at Tyrone, Ky.

Miller Bros., grain dealers at Portland, Ore., have sold out.

Waller & Altpeter will build a brewery at Grant's Pass, Ore.

John Dilworth is building an elevator at High Bluff, Man.

The farmers' elevator at Holdregé, Neb., is nearly finished.

Goeck & Huber will build a brewery at Walla Walla, Wash.

Theodore R. Helb's brewery at York, Pa., will be enlarged.

Bell & Co.'s new oil mill at Belton, Tex., is nearly finished.

L. L. Stephens, grain dealer at Waterloo, Neb., has sold out.

Henry E. Baker, grain dealer at Medford, Ore., has sold out.

Jas. Wallace & Son of New York City, will build a brewery.

George Malcolm of Brooklyn, N. Y., will build a brewery.

Melsheimer, Mack & Co. of Denver, Colo., will build a brewery.

Work has been begun on a new elevator for Harrisburg, Pa.

The linseed oil mill at Leavenworth, Kan., is being improved.

Ochs & Aschberger will build a brewery at San Antonio, Tex.

John M. Blackburne of Philadelphia is enlarging his malt house.

L. Butterfield & Co., grain dealers at Saronville, Neb., have sold out.

McCrocklin & Co. will probably build a distillery at Taylorsville, Ky.

A cotton-seed oil mill will probably be erected at Hempstead, Tex.

Miller's grain elevator at Red Lion, Pa., is to be run by an electric motor.

J. J. Holloway has purchased the Hill City Broom Factory at Rome, Ga.

A warehouse is being built by N. Bawlf, grain dealer at Winnipeg, Man.

Mr. Fairbank will operate the Robbins Elevator at Dodge City, Minn.

The Boonville Brewing Company will build a brewery at Boonville, N. Y.

Martin & Smith, millers and grain dealers at Albion, Neb., have sold out.

Waterfall & Frazier are building a distillery at Bond's Mill, Bardstown, Ky.

The Parkersburg Brewing Co. will build a brewery at Parkersburg, W. Va.

The Metcalf MacDonald Company, grain elevator builders of Chicago, have erected elevators for the F. M.

Cockrell Grain Company at Vernon, Iowa Park, Herald, and Quanah, Tex.

Wirt Bros. & York, grain dealers at Loomis, Neb., have dissolved partnership.

D. S. Harding has bought the Fairbank Steam Elevator at Dodge Center, Minn.

The Texas & Pacific Railway will build a grain elevator at Alexandria, La.

The Marlboro Cotton-Seed Oil Co., at Bennetsville, S. C., has been reorganized.

The Farmers' Alliance has purchased the grain warehouse at Beresford, Dak.

The Independent Brewing Company of New Orleans, La., will erect a brewery.

The E. Griesbach Brewing Company will build a brewery at Kerosha, Wis.

Mr. Hutchins of Sarnia, Ont., will rebuild his elevator, recently destroyed by fire.

Faw, Edwards & Co., grain dealers of Gonzales, Cal., have dissolved partnership.

Carter & Rogers, grain dealers at Minnesota City, Minn., have dissolved partnership.

Burwell & Tazewell, grain dealers at Norfolk, Va., have dissolved partnership.

E. M. Dickey & Co. have decided to locate a large elevator at Fort Dodge, Iowa.

A large brewery will be built at McKeesport, Pa., with a capital stock of \$100,000.

C. W. Hall of Jackson, Minn., is building an elevator of 20,000 bushels' capacity.

Williamson & Fondella have established a broom factory at Spring Branch, Tex.

J. G. Roach will organize a stock company to erect a distillery at Henderson, Ky.

Thomas Armstead of Coushatta, is putting up a \$40,000 oil mill at Mansfield, La.

A stock company will probably be organized to erect a brewery at Little Rock, Ark.

A. P. Hart and J. H. Dodson, dealers on the Chicago Board of Trade, have failed.

J. B. Bruning of the grain-dealing firm J. B. Bruning & Co. at Breda, Iowa, is dead.

The Van Dusen Elevator at Dodge Center, Minn., has been overhauled and repaired.

The British Columbia Brewing Company has been incorporated at Victoria, B. C.

A stock company will probably be organized to build a rice mill at St. Augustine, Fla.

The grain elevator at Richford, Vt., has been assured by a deed of land for building.

A. S. Connelley & Co. will erect a grain elevator at their flouring mills at Eastland, Tex.

The Joseph Walton Coal Company will build a \$30,000 elevator at Memphis, Tenn.

It is stated that a stock company is being organized to erect a brewery at Anniston, Ala.

E. D. Churchill & Sons are doubling the capacity of their grain elevator at Chenoa, Ill.

Woodford & Holbrook, grain dealers at Minneapolis, Minn., have dissolved partnership.

A \$150,000 brewery will be built at Monterey, Mex., by Joseph Schneider of St. Louis, Mo.

Mrs. E. A. Jewett of the Chicago grain firm of T. M. Baxter & Co., wants an accounting.

The Merchants and Farmers' new oil mill at Monroe, La., will be ready for business soon.

The Becherer Malting Company of Chicago has been incorporated. Capital stock \$50,000.

Grosvenor & Co. are building an elevator of 35,000 bushels' capacity, at Jonesville, Mich.

The Brooks Elevator Company has been incorporated at Minneapolis with a capital of \$250,000.

Austin, Wilkinson & Co., grain dealers of Bolles Junction, Wash., have dissolved partnership.

A new leg has been put into Elevator "B" of the Baltimore & Ohio Railroad, at Baltimore, Md.

The Alabama Oil Mill Co. will probably erect a \$50,000 cotton seed oil mill at Demopolis, Ala.

Bodine & Spencer, dealers in hay, grain and feed, have removed from Newcastle to Dudley, Wyo.

The St. Anthony Elevator at Minneapolis, which was burned three years ago, is still smoldering.

A new flax elevator with a capacity of 20,000 bushels, will be built at Fort Dodge, Iowa, at once.

A glucose factory with a capacity of 1,000 bushels of corn per day will be built at Lincoln, Neb.

The George C. Bagley Elevator Company has been incorporated, with a capital stock of \$300,000. The incorporators are G. C. Bagley, A. C. Cornwall and D. M.

Gilman. It will operate elevator X at Minneapolis, formerly owned by G. C. Bagley.

Barnes & Adams, grain dealers at Minneapolis, Minn., have been succeeded by Barnes & Nicholls.

The firm of Giles & Gorden, grain dealers at Abilene, Kan., has been succeeded by Wm. B. Giles.

The trouble between the Grain Scoopers' Union and the elevator men at Buffalo has been settled.

The Hale Warehouse Company, dealing in grain and livestock at Battle Creek, Neb., has sold out.

The Highland Elevator Company, with a capital stock of \$8,000, has been incorporated.

The Bartholomae & Roesing Brewing and Malting Company of Chicago will build a brew house.

The Columbia Brewing Company, with a capital stock of \$200,000, has been incorporated at Chicago.

Hubel & Schermerhorn, hay and commission dealers of New York City, have dissolved partnership.

The Farmers' Elevator Company has made preparations for building an elevator at Hastings, Neb.

An elevator for the Lake of the Woods Milling Company is in process of erection at Carberry, Man.

Hays, Perrin & Hulbore of Cincinnati, Ohio, have purchased the Megibben distilleries of Lair, Ky.

A grain elevator is being built by the Mammoth Spring Roller Mill Company of Mammoth Spring, Ark.

Mr. Rowe, grain dealer at Atalissa, has moved to Wilton, Iowa, and will buy grain at both points.

The Salt Lake City Brewing Company of Salt Lake City, Utah, will build a brewery and malt house.

Charles Counsellman & Co., of Chicago have bought five elevators of the Edson Gregg system in Nebraska.

The Farmers' Alliance will probably build a cotton-seed oil mill and fertilizer factory at Chester, S. C.

Theodore Heinen & Co., grain dealers at Bonnets Mills, Mo., have been succeeded by J. Ruettgers and Co.

The H. J. O'Neill Grain Company has been incorporated at Winona, Minn., with a capital stock of \$200,000.

The Evansville Brewing Company has been incorporated at Evansville, Ind., with a capital stock of \$100,000.

The Exposition Brewing Company at Detroit has filed articles of association. The capital stock is \$30,000.

A grain elevator will be erected at Weldon, N. C., by the Roanoke Navigation and Water Power Company.

The Orangeburg Cotton Seed Oil Company at Orangeburg, S. C., have purchased machinery for an oil mill.

The grain commission firm of W. S. Moore & Co. of Duluth, Minn., has been succeeded by George Spencer.

Rover & Droste, grain commission dealers of Cincinnati, Ohio, have been succeeded by G. H. Rover & Co.

Wilson & Wyrick of Terre Haute, Ind., have purchased the Central Elevator at Kenney, Ill., for \$4,000.

An elevator is being built at Bridgeport, Ala., by the Nashville, Chattanooga & St. Louis Railroad Company.

C. D. Dillon, dealer in grain, agricultural implements and hardware at Neola, Iowa, has sold his grain business.

J. O. Guy & Son, dealers in coal and grain at Oshawa, Ont., have been succeeded by the Oshawa Coal Company.

The Brenham Cotton Seed Oil Mill at Brenham, Tex., has been purchased by the Brenham Compress Company.

The H. E. Owen Company, grain dealers at Norfolk, Va., has been succeeded by Anderson, Barham & Owen.

A stock company with \$50,000 capital will probably be organized to erect a brewery and ice factory at Griffin, Ga.

The Nebraska Distillery Company has been incorporated at Nebraska City, Neb., with a capital stock of \$300,000.

The recently-organized Jackson Brewing Company will commence work on their building in New Orleans soon.

Mr. Van Dusen has leased his elevator at New Ulm, Minn., to the New Ulm Elevator Company for three years.

Work has been commenced on the Canton Elevator No. 3 at Baltimore, Md. Capacity will be 1,250,000 bushels.

The Northern Central Railway Company will build an elevator at Calvert Station, Md. Capacity 300,000 bushels.

The Standard Cotton-Seed Oil Company has been incorporated at New Orleans, La., with a capital stock of \$50,000.

The W. H. Burcell Company has been incorporated at Chicago, to do a malting and grain business; capital stock \$250,000.

A farmers' elevator company has been organized at Shekley, Neb., to build or purchase an elevator at once. The officers are: President, A. A. Beach; vice-president,

J. W. Ireland; secretary, J. P. Morris; treasurer, E. Beiter.

The Cochran Cotton-Seed Oil Company at Philadelphia, Pa., has been incorporated with a capital stock of \$200,000.

Barnett & Record of Minneapolis, builders of grain elevators, will build a 500,000-bushel elevator at Kansas City, Mo.

An elevator of 30,000 bushels' capacity is being erected at Griswold, Man., by the Lake of the Woods Milling Company.

Wm. A. Vaughan, dealer in lumber, grain and implements at Carman, Ill., has been succeeded by Vaughan & Wheatley.

The Anglo-American Brewing and Malting Company has been incorporated at Chicago with a capital stock of \$1,000,000.

English, Morse & Co., Kansas City, Mo., shipped the past week a 60-horse power Atlas Engine and Steel Boiler to Arizona.

English capitalists have completed negotiations for the purchase of a site for the erection of a mammoth brewery in Chicago.

Ferdinand Rousseau and others have organized the St. Martin's Oil Works, limited, at New Orleans, La.; capital \$100,000.

The Farmers' Alliance has organized a company to build a cotton-seed oil mill and fertilizer factory at Tuscaloosa, Ala.

The farmers' alliance is endeavoring to organize a company to erect an oil mill and fertilizer factory at Chester, S. C.

Schroeder & Co., who operated a bucket shop in Kansas City, Mo., failed Aug. 11. The rapid advance in grain was the cause.

The Howard and Alexander Grain and Live Stock Company has been incorporated at Chicago. Capital stock \$100,000.

Mr. Schwartz of St. Louis, Mo., has had his ordinance passed for leasing a part of the public wharf for his farmers' elevator.

The Algiers Brewing Company has been incorporated with a capital stock of \$125,000 to build a brewery at New Orleans, La.

The lined oil mill at Leavenworth, Kan., is being extensively improved. It will be in operation about the middle of August.

The Milledgeville Oil and Fertilizer Company of Milledgeville, Ga., has purchased machinery for the enlargement of its works.

The new Ontario elevator at Buffalo, N. Y., is finished. The Exchange elevator and the New York Central elevator are progressing.

Earnest Hess, the Chicago grain dealer who failed recently, has paid his creditors 75 cents on the dollar, and will resume business.

The Jackson County Farmers' Alliance contemplates erecting a cotton-seed oil factory and fertilizer works at Harmony Grove, Ga.

The Laurens Oil and Fertilizer Co., at Laurens, S. C., has increased its capital stock from \$20,000 to \$30,000, and again to \$40,000.

Three new elevators at Buffalo, N. Y., will soon be ready for the fall trade. They are the Wheeler, "City C," and the "Exchange."

The St. Paul Warehouse and Elevator Company at St. Paul has sold Elevator B to the Great Northern Railway Company for \$135,000.

A cotton-seed oil mill and ginnery will be established at St. Matthews, S. C., by the St. Matthews Manufacturing and Warehouse Company.

Cargill Bros.' elevator at Green Bay, Wis., is being improved, and a new dock 400 feet in length and 100 feet in width is being constructed.

F. L. Greenleaf, president of the Chamber of Commerce, and Frank Tenney have opened a grain commission business in Minneapolis.

J. B. Her, a well known brewer, proposes to fight the whisky trust. He intends to establish a \$3,000,000 distillery somewhere in the West.

George W. Chandler of Collins, Iowa, has sold his elevators at Collins, Cambridge and Maxwell to the St. Paul and Kan-as City Grain Company.

A grain elevator is to be erected at Richford, Vt., by a stock company. This will make Richford a distributing point for large quantities of grain.

Chandler, Brown & Co., Chicago, have retired from the receiving business, and have transferred that branch of their business to R senbaum Bros.

W. R. Marshall, architect, Brandon, Man., has made plans for an elevator of 30,000 bushels' capacity, for the Canadian Pacific Railroad Company.

The Grier Commission Company of St. Louis, Mo., is in trouble. President Kellor of the company had his eye on Updyke, another member of the firm, and met the

deals of the company in the market. He profited, but the firm lost heavily. Mr. Updyke is prostrated and refuses to talk.

The Buerger-Reinig Company have incorporated, with a capital stock of \$101,000. It will do an elevator and malting business at Fond du Lac, Wis.

The Davis and Don breweries, owned by Robert Davis and the Ontario Brewing and Malting Company, have been sold to an English syndicate for \$650,000.

The brewers of Minneapolis, Minn., have formed a combination to keep up prices. The company, which has a capital of \$1,000,000, will erect a new brewery.

The Newberry Cotton-Seed Oil Mill and Fertilizer Company at Newberry, S. C., wants catalogues and prices on machinery for a 20-ton cotton-seed oil mill.

J. J. Fretwell, P. K. McCully, J. S. Fowler and others have incorporated the Anderson Ginning and Manufacturing Company at Anderson, S. C. Capital stock \$5,000.

The Decatur Union Elevator Company has been incorporated at Decatur, Ill. Capital stock, \$20,000. Incorporators, R. E. Pratt, J. M. Pratt and Charles N. Twiddle.

Charles Lauga is organizing the Farmers' Cotton-Seed Oil Company, to establish a mill at New Orleans, La., to manufacture cotton-seed oil by a process of which he is the inventor.

English, Morse & Co. of Kansas City, Mo., shipped the past week a 90-horse power automatic engine and steel tubular boiler, with pump heater and complete outfit, to Denver, Colo.

English, Morse & Co. of Kansas City, Mo., report numerous sales of Atlas and Ide engines, boilers, steam pumps, and the various engineering specialties for which they are headquarters.

The Brooks Elevator Company has been incorporated at Minneapolis, with a capital stock of \$250,000. The incorporators are Lester R. Brooks, Dwight F. Brooks and Hiram S. Brooks.

The Greenville Elevator and Warehouse Company at Greenville, Miss., has contracted with the Livermore Foundry and Machine Company of Memphis, Tenn., for the erection of a grain elevator.

James Stewart & Co., elevator builders of St. Louis, Mo., have completed a 500,000-bushel elevator for the Harter Company at Fostoria, Ohio. They are now building an elevator for the Imperial Mill Company at Duluth, Minn.

A 1,000,000-bushel elevator with complete rope transmission, has been completed for the Central Vermont Railroad Company, by the Metcalf-MacDonald Company, grain elevator builders of Chicago. It is one of the finest on the lakes.

The North Dakota Elevator Company has had Mr. Canfield, an employee at Little Falls, Minn., arrested, upon the charge of issuing fraudulent warehouse receipts. In a confession he implicated Burton Bros., business men of Little Falls.

John W. Walker, a well known citizen and grain merchant of Mansfield, Ill., was arrested on the charge of setting fire to his own building. The prosecution failed to produce any evidence that Mr. Walker had anything to do with the fire. He was acquitted by the court.

The James Hill Grain Dryer which was put into the Marine elevator at Buffalo, N. Y., did not prove successful. It was claimed that by carrying off the steam rapidly from the grain no musty smell would remain. The fault was that the steam remained long enough to cook the grain.

The board of directors of the Elmwood Farmers' Alliance Business Association at Elmwood, Neb., has examined the books of J. W. Hollenbeck, business manager of said association, and has found the books all right, with the exception of a few clerical errors, which have been made satisfactory to all parties concerned.

The Farmers' Elevator Company held its annual meeting at Portage la Prairie. An 8 per cent. dividend was declared. The following were elected as the board of directors: D. McCowan, T. E. Wallace, T. H. Metcalfe, G. Greenlay, Wm. Wishart, John Brydon, and W. F. Smith. D. B. Hanna and John Hunter, auditors; D. McCowan president.

All the grain elevators of Gregory & Son were sold to Rosenbaum Bros. of Chicago. The purchase was made for an English syndicate. The elevators are located all through Northwestern Iowa, and control a large share of the grain trade of that part of the state. They are at Fort Dodge, Clarion, Vincent and Lehigh. The purchase takes effect in one year.

Builene, Moore, Emery & Co. of Kansas City, Mo., have contracted with English, Morse & Co. of Kansas City, Mo., for two high speed engines for driving the electric lighting plant for their new building. The engines will have a combined capacity of 200-horse power, and will be fitted with all of the latest improvements, including a system of Hill Clutch Pulleys.

The George A. Weiss Malting and Elevator Company of Chicago, has begun proceedings in the United States Circuit Court at New York, in a suit for \$715, against the New York Central and Hudson River Railroad Company. On July 26 the plaintiff shipped by the defendant company from Chicago 505 bags of malt, consigned to

Peter Buckel, New York. The malt was, the plaintiff asserts, wet and damaged to the amount sued for, through the carelessness of the agents of the roads in transportation.

Advices from West Superior, Wis., state that the Superior elevators have already handled about 13,000,000 bushels of last season's crop, out of a total of 20,000,000 that reached the head of the lake. Wheat is coming in steadily, and each of the Superior systems will yet handle considerable of the last crop. The Sawyer system has handled about 8,000,000 bushels, and the Great Northern system about 20,000,000 bushels.

The Elmwood elevator case, which recently created something of a stir at the state capital, is recalled by a well authenticated rumor that J. W. Hollenbeck, manager of the farmers' alliance elevator, has been found short in his accounts and is being investigated by a committee from the alliance. Hollenbeck operated the elevator which the alliance fought to be permitted to erect on railroad ground.—*State Capital, Lincoln, Neb.*

The Northern Pacific Elevator Company will build elevators at Elwood, Coppie, Longs, Huntsville, Dayton, Dixie, Wilbur, Creston, Sunshine, Moscow, Vollmer, Kendrick, Julietta, Lewiston and Asotin. These towns are situated along the Washington Central, Oregon & Washington Territory and Palouse & Idaho lines, and the elevators, when built, will increase the number owned by the company in the Puget Sound district to sixty-three.

The directors of the Union Elevator at Council Bluffs, Iowa, held a meeting recently, for the purpose of selecting directors and officers for the following year, and leasing the elevator. Blythe, Given, Kimball, Whitman, Earling and Pusey were re-elected directors. Thomas L. Kimball was elected president, A. J. Earling, vice-president, and H. A. Snyder, secretary and treasurer. The elevator will be leased, either to Peavey & Co., Minneapolis, or to C. T. Brown of Omaha, Neb.

L. K. Lee, proprietor of the Valley Springs Roller Mills, is in deep trouble. Lee has a big plant at Valley Springs, six miles from Sioux Falls, S. D.—an elevator and a mill worth \$50,000. A year ago it was clear; to day it was turned over to the Peaveys of Minneapolis, and Mr. Lee languishes behind the bars on the charge of embezzlement. This condition of things is owing to Mr. Lee's desire to gamble on the fluctuation of the wheat market. It seems that the farmers about his mill trusted implicitly in Mr. Lee's honesty, and stored their grain in his elevator, taking storage receipts. Thousands of bushels were taken last fall and spring by Mr. Lee. When the mill and elevator was taken in by the Peaveys the discovery was made that they were empty.

Of the great number who have ordered Standard Improved Grain Testers of the H. G. Deal Specialty Company, Bucyrus, Ohio, the following is a partial list: Homer Baldwin for his Diamond Mills, Youngstown, Ohio; the Goshen Milling Company, Goshen, Ind., the sixth tester for one of their grain buyers; J. G. Dugo, Bryan, Ohio; P. M. Wiest, Piney Creek, Md.; Steiner & Dolan, Syracuse, Ind.; T. Ault & Son, Bellaire, Ohio; the Cleveland Milling Company, Cleveland, Ohio; Bucks Milling Company, Columbia, Tenn.; H. McGrew & Co., What Cheer, Iowa; McClelland & Co., Cumberland, Ohio; the Clark Warden Company, Glasgow, Ky., two testers; A. A. Cunningham, Tiffin, Ohio, three testers; H. Merchantell, Forest, Ohio, two testers; Wadsworth Milling Company, Wadsworth, Ohio, and a great many others.

THE GOOD OLD TIMES.

Coming down to Omaha the following dialogue was overheard:

"Hello, Aleck! 's that you?"
 "Yes, what's left, these hard times?"
 "Times is hard. Where are you livin'?"
 "Up north; where are you?"
 "Out west. Do you remember the good times we used to have down on the old Missouri bottom years ago?"
 "Yes, I remember the good times. Wish I had 'em now."
 "Feller got somethin' for somethin' then."
 "Yes; money or trade?"
 "Le's see; what was wheat one year down there?"
 "In the spring of 1868 I think you got \$2.50 (two dollars and fifty cents) a bushel for some."
 "Yes, and corn was worth \$1 a bushel, eh?"
 "Sometimes corn brought \$1 a bushel in those years. There was not much to sell in Nebraska, though we imported corn."
 "Don't care, I sold some at \$1. Wish I could now. Them were good times."
 "Things were high then."
 "We used to go to mill forty miles, remember; but when we got there we got somethin' for our wheat, got our little old flour and feed out, and had money to go home with—dollar a bushel, anyway. Can't do that now."
 "Wheat is down, and so are the farmers, and butter as such. Butter 50 cents a pound, take a little pail in of a mornin' and you got somethin'. Eggs, too, 25 and 30 cents, and even 40 cents, a dozen often. Them was good times."
 "When we make money, it's good times, and when we don't, it's bad times."
 "Well, what makes times, anyway? There wasn't a railroad in the country then. And times was good, and we got somethin' for all our truck, didn't we?"
 "Yes, for all you had."
 "Darn the railroads; they've busted us all up."—*Omaha Republican.*

WATERWAYS

During June 9,459,796 bushels of wheat and 2,592,736 barrels of flour passed through the Sault Ste. Marie Canal.

A number of complaints have recently been made at Port Huron, Mich., of shortages in grain cargoes from Chicago.

The Minneapolis Board of Trade is seeking to have the government make an appropriation for making that city the head of navigation of the Mississippi River.

The schooner *Charger* of Detroit was run down and sunk off Toledo by the steam barge *City of Cleveland*. The crew of the schooner was saved, but the vessel and her cargo of 16,500 bushels of wheat are a total loss.

The Erie Canal is said to be so low that navigation is greatly hindered, particularly as to loaded boats. Many of the latter have been grounded between Albany and Buffalo. The tributaries furnishing water are very low.

On account of business brought by the Minneapolis & Sault Ste. Marie Railway, Gladstone, Mich., has become an important shipping port for grain to Buffalo. Although a little coal is occasionally shipped back, boats from Gladstone are obliged more frequently to return light.

The Dominion canals, constructed between Montreal and Lake Erie, are the Lachine, Beauharnois, Cornwall, Farran's Point, Rapide Flat, Galops and Welland. Their aggregate length is 70½ miles; total lockage (or height directly overcome by locks) is 533¾ feet; number of locks, 53.

Congress has, perhaps, given a final blow to Captain John Cowdon and his outlet scheme. No man has been more persistent or has done harder work to convince Congress and the world of the folly of present methods of controlling the Mississippi River and the feasibility of the outlet method.

The annual report of the Suez Canal, just made, shows a profit for last year of 37,212,925 francs. The improved financial conditions give encouragement of a rebate on the tariff charges, and the improved conditions of navigation show a reduction of four hours in the time required in making the passage of the canal.

A plan has been proposed for connecting Philadelphia with New York by a ship canal. The plan proposes to utilize a part of the present Delaware and Raritan Canal, and to excavate a new line for the rest of the distance between Raritan Bay and the Delaware River at Bordentown. The cost of the canal is estimated at \$12,000,000.

The Kansas City correspondent of the *St. Louis Grocer* says: "The steamer *A. L. Mason*, which came up loaded with freight last week from St. Louis, returned last Friday loaded to the guards with grain and various articles of produce. The new line will prove a success from the start. Two more steamers will be put on within two months, one of them being almost completed and ready for business."

It is proposed to build a ship railway from Georgian Bay to Lake Ontario, and thus shorten the route from Chicago to Montreal by 456 miles. This will take the place of the ship canal which was projected a number of years ago, and the cost will be about half as great, or only \$12,000,000. It is stated that a syndicate is prepared to carry out the undertaking if the Canadian Government can be induced to grant a liberal subsidy.

A bill has been introduced in Congress giving the use of North Pier at Buffalo, N. Y., to the Delaware, Lackawanna & Western Railway Company. However, it is not likely to pass, for the Baltimore Corn and Flour Exchange, and other commercial bodies, have appointed committees to kill the bill. It is hoped that the bill will be killed. If this bill is passed, some company will soon be asking for the exclusive use of New York harbor.

Captain Marshall, the engineer officer in charge of the work upon the location, plans and estimates of constructing the Hennepin Canal, estimates the cost of the work, with 10 per cent. added for contingencies, is for the main line \$5,067,562, and for the feeder lines \$1,858,398. Captain Marshall recommends that to secure full benefits the Illinois and Michigan Canal should be enlarged to the capacity of the government canal, otherwise the proposed canal would be simply a local highway of importance to its immediate neighborhood, but regarded as a national highway of but comparatively small significance.

The Senate committee on inter-state commerce has presented its report, in which it is recommended that so long as the entrance fee of 50 cents and clearance fee of 50 cents or \$1 every time an American vessel visits a Canadian port on the Great Lakes or their tributaries is demanded, all Canadian vessels be required to pay like fees in the ports of the United States; that so long as the discrimination in tolls of 18 cents per ton on products of the United States in favor of Montreal or ports below that city on the St. Lawrence River is made by the Dominion Government, a discriminating toll on the tonnage of Canadian vessels should be imposed upon all such vessels every time they pass through the Sault Ste. Marie Canal, and that either such a license system shall be estab-

lished as will be applicable to the Canadian railroads doing business in the United States, or that some other plan, not injurious to the general trade and commerce of the country, be adopted which shall secure to American railroads an equal chance of competing with Canadian railroads.

Under the treaty of 1876 the Welland Canal and the other canals of the Dominion are supposed to have been opened to our citizens on equal terms with those of the Dominion. But that provision of the treaty is to-day a dead letter. Full tolls are charged upon all merchandise passing through those canals to American ports, while rebates are granted of the full amounts to all commerce which passes through such canals to and from the port of Montreal.

Representatives of rail and lake lines met at Buffalo, N. Y., to consider the question of an increase in through rates on grain from Chicago to New England. It was recommended that the increase be not higher than what the business will warrant. The present rate on corn by some lines is 9¼ cents, and by others 8¾ cents, while the Grand Trunk claims that is getting traffic at a much higher figure. The matter of fixing the rate was referred to a committee of three Western agents, consisting of Hugh McMillan of the New York Central, D. B. Linsted of the Ogdensburg line, and F. A. Howe of the Grand Trunk.

The Legislature has been petitioned for the incorporation of certain individuals to construct a canal from tide-water to the Merrimac River at Lowell. The name under which the incorporators will be associated is the New Middlesex Canal Company. Authority is asked to acquire, by purchase or otherwise; such lands, streams or ponds as may be needful for the construction of the canal. The works are not to be commenced till the location is designated by the company and approved by the mayor and aldermen of any city, and selectmen of any town through which it is proposed to build the canal. The capital stock is placed at \$1,000,000, with the privilege of increasing it to \$5,000,000.

Some years ago it was decided to enlarge the canals on the St. Lawrence route, so as to afford a navigable depth of twelve feet throughout. Subsequently, however, it was decided that the depth should ultimately be increased so as to accommodate vessels of fourteen feet draught; and accordingly in the scheme of enlargement which has so far been carried out, while, at present, a channel-way in the canals is provided for vessels drawing twelve feet only, all permanent structures, locks, bridges, etc., are being built of such proportions as to accommodate vessels of fourteen feet draught, the locks being 270 feet long between the gates, 45 feet in width, and with a clear depth of fourteen feet of water on the sills.

The process by which the canals have been forced into disuse, says the *Pittsburg Dispatch*, is a stereotyped one in nearly every instance. First, political management has suffered them to fall into disrepair and to discourage their general use. Then, when traffic has fallen off by being driven away, some railroad corporation has stepped in and acquired the property, sometimes to use it as a right of way for the railroad tracks, but always with a distinct purpose of totally destroying the waterway. The success which has attended the corporate policy of destroying the competition of internal water transportation by such means as this is a striking example of public blindness and political faithlessness to the popular interests.

The comparison of tonnage passing through the St. Mary's Falls Ship Canal and cost of construction with others show its value. The net tonnage of the Suez Canal for the year 1888 was 6,640,834 and the total increase for the two years of 1887 and 1888 over 1886 was 919,148 tons, while the increase of the St. Mary's for the year 1889 over 1888, 1,104,599 tons, or 22 per cent. greater in the St. Mary's for one year than in the Suez for two years. The Suez is open for navigation the entire year, while the St. Mary's in 1889 for only 234 days. The cost of the Suez in 1887 was about \$92,000,000, while that of the St. Mary's with new lock completed as estimated, the sum of \$7,888,667.46. The average charge for tolls during 1888 in the Suez was \$1.89 per ton.

From Ogdensburg, N. Y., or Prescott, Ont., to Montreal, the total distance is 119 miles, of which 75¾ miles is river navigation and 43¾ miles through canals, as follows: From Ogdensburg to Galops Canal, 7¾ miles; Galops Canal, 7¾ miles in length; from Iroquois to the Rapide Flat Canal, 4¼ miles; Rapide Flat Canal, 4 miles long; from thence to Farran's Point, 10½ miles; Farran's Point Canal, ¾ mile; then five miles of river navigation to Dickinson's Landing, where the Cornwall Canal begins, and extends 11½ miles to the town of Cornwall; 32¾ miles through Lake St. Francis to Valleyfield, and 11¼ miles through the Beauharnois Canal to Melocheville into Lake St. Louis, where navigation is open for 15¼ miles; an 8½-mile reach through the Lachine Canal reaches Montreal.

Alex. McDougall of Duluth said recently: "We are now laying at West Superior the frames for two steamers of the larger class. The dimensions of the large boats will be 300 feet in length, 41 feet beam, and 24 feet hold. It will take only 16 feet draft to carry the 4,000 tons. In order to get them through the Sault we shall load them to only 15 feet, on which we can carry 3,300 tons. This class of boats will run between Duluth and Buffalo. The other class of boats will be 260 feet over all, 38 feet beam, and 24 feet hold. They are designed expressly for running to Montreal, and will carry 85,000 bushels of wheat

through the Welland Canal on a maximum draft of 14 feet. We think there is going to be a large traffic between Duluth and Montreal, and we intend to handle our share of it."

The lock valve of the Sault Ste. Marie Canal became disabled the last day of July, and for eighty-nine hours all traffic between Lake Superior and the lower lakes was suspended. The principal cause of the delay in the repairs was the pumps giving out. One hundred and fifty vessels were tied up, representing about \$10,000,000. The direct loss to vessel men will be about \$100,000, while the general public loss will raise that to about \$200,000. Sixty up-bound and ninety down-bound craft were lying idle.

A story is told in the East of a man in the drouth part of Kansas who sowed a field of wheat, but it did not germinate; next year he sowed oats on the same land but it did not come up, and the next year he sowed rye with the same success. The next year the rains came, and so did the wheat, and yielded a bountiful crop. The rains continued the following year and brought a big crop of oats, and the rye put in an appearance the next year, though he had sown nothing after the three years' drouth. The man got rich. There is no place like Kansas.

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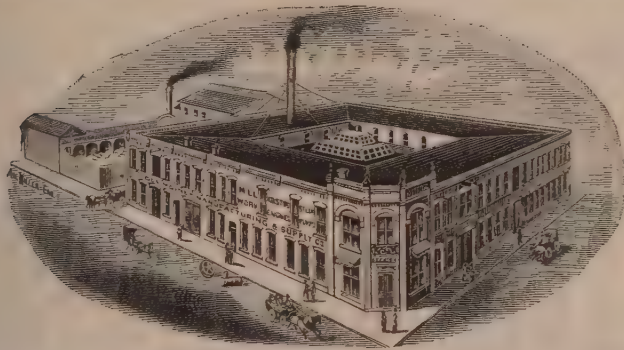
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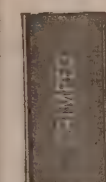
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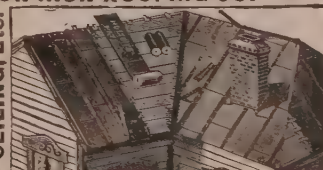
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USE "QUICK LAID" STEEL
ROOFING

IT IS WITHOUT AN EQUAL.

HEBERLING M. R. CO., Mfrs., HAVANA, ILL.

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Supplies for —

- FLOUR MILLS, GRAIN ELEVATORS
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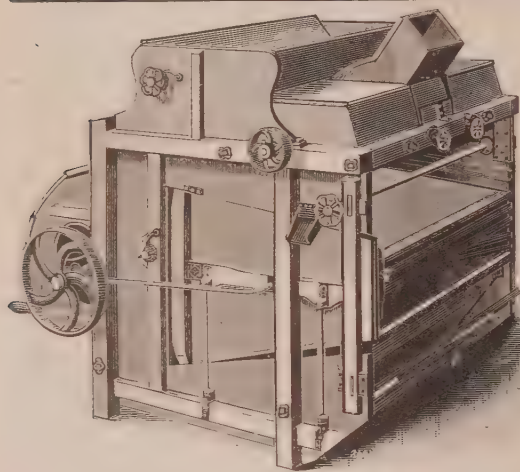
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H.W. CALDWELL & SON.

131 & 133
WEST WASHINGTON ST.
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CALDWELL-AVERY
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"A. P. DICKEY"
UNDER AND OVER BLAST
DUSTLESS GRAIN SEPARATORS
AND WAREHOUSE FANNING MILLS.

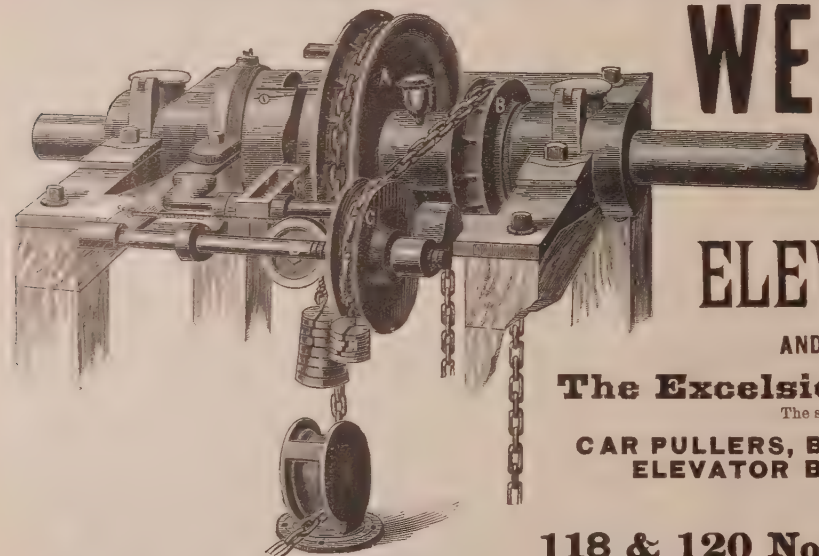
Made in any desired size and capacity to accommodate the largest elevators and flouring mills, or small warehouses for hand use.

THE END SHAKE MILLS
(MOTION OF SHOE FROM FRONT TO BACK.)

Are highly recommended for use with horse power, and Warranted to give Better Satisfaction when run in this way than any other mills made.

For Circulars, Prices, Etc., Address the

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WELLER BROTHERS,
MANUFACTURERS OF
ELEVATING AND CONVEYING
MACHINERY.

AND SPECIALTIES FOR MILLS AND ELEVATORS.

The Excelsior Automatic Power Grain Shovel,

The simplest, most perfect, and easiest operating shovel in the market.

**CAR PULLERS, BELT CONVEYORS, SPIRAL STEEL CONVEYORS,
ELEVATOR BUCKETS, ELEVATOR BOOTS, TURN HEADS,
PULLEYS, SHAFTING, etc.**

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**AUTOMATIC
ACCURATE
AUTHENTIC**

Invariably true in the Automatic Weighing of Grain, Uncleaned or Cleaned. in

**FLOUR MILLS,
STARCH MILLS,
OIL MILLS,
FLAX MILLS,
MALT HOUSES,
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Or in transit from Cars, Vessels, or Bin to Bin.

Address **J. B. DUTTON,**



115 E. FORT ST.,

**THE PATENT
J. B. DUTTON,
AUTOMATIC
GRAIN AND FEED SCALE.**

Shrinkage Accurately Ascertained.
SCALES Sent to any part of the United States or Canada on 30 Days' Trial, and

MY GUARANTEE:
They shall weigh as accurately as either a Fairbanks or a Howe Scale.

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THE BEST & CHEAPEST BELTING IN THE WORLD

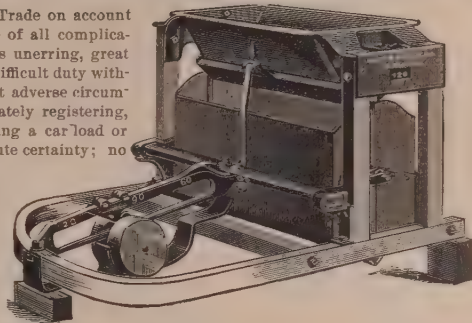


MANUFACTURED BY
THE CHESAPEAKE BELTING CO.
BALTIMORE, MD.

THE LOCHER AUTOMATIC SCALE

Commands the attention of the Grain Trade on account of its extreme simplicity, total absence of all complication, small vertical space required, its unerring, great accuracy. The ability to perform its difficult duty without any attention; and under the most adverse circumstances continuously weighing, accurately registering, and when set for the purpose, delivering a car load or any other given quantity with absolute certainty; no more, no less.

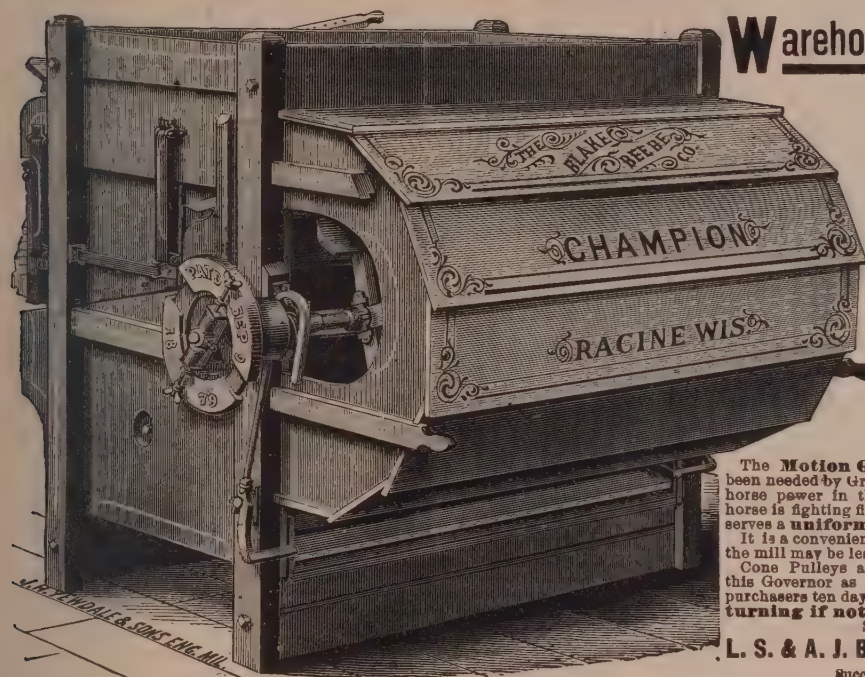
This Scale was awarded the highest and only premium, a silver medal, at the Cincinnati Centennial Exposition of 1888. The Locher Weighers are manufactured, not only for Grain, but for Coal, Cotton Seed, and also for all kinds of fluids, and of a capacity of from 200 lbs. to two tons per minute. They are made to weigh and deliver material as fast as the feed for a mill or other machine requires it.



Every Scale Warranted and Sent on 30 Days' Trial.

WRITE FOR PRICES AND TERMS TO THE

LOCHER SCALE CO., DECATUR, ILL.



Warehouse Fanning Mills.

Out of No. 6 Mill with Motion Governor.

—CAPACITY—

**600 BUSHELS
PER HOUR.**

WE MAKE

**Farm Mills and
Seven Different Sizes**

—FOR

**Warehouses
and Elevators**

More of them in actual and satisfactory use than any other kind.

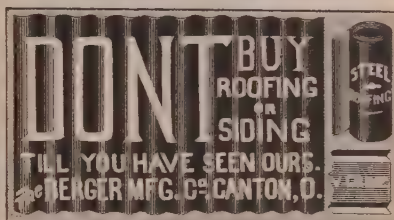
The Motion Governor is something that has long been needed by Grain men, particularly by those who use horse power in their elevators, for it matters not if the horse is fighting flies, jumps or runs, this Governor preserves a **uniform and steady speed.**

It is a convenience with steam power, as the speed of the mill may be lessened or accelerated by it in a moment. Cone Pulleys are unnecessary with it. We guarantee this Governor as good as represented and we will allow purchasers ten days to test it, with the privilege of returning if not equal to the guarantee.

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L. S. & A. J. BLAKE, Racine, Wis.

Successors to The Blake-Beebe Co.



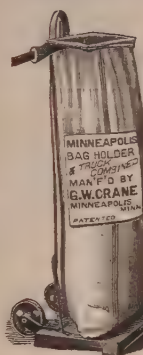
IMPORTANT INVENTION,

Suitable for all purposes requiring a

Bag Holder and Truck.

A combination costing no more than a common truck. Can be used without the truck or attached to a platform scale. Trial orders and correspondence solicited from responsible parties. Adjustable to any size sack.

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The "CHRONOS." The Only AUTOMATIC GRAIN SCALE

SUITABLE FOR ELEVATORS.

FOR THE FIRST TIME INTRODUCED IN THE UNITED STATES.

Over 4,000 in use in Europe,

Australia, South America and India.

ADOPTED BY SEVERAL EUROPEAN GOVERNMENTS AS

A STANDARD,

USED FOR THE ASSESSMENT OF CORN TAXES AND DUTIES IN GERMANY.

THE "CHRONOS" Automatic Grain Scale is the only Automatic Scale that has proved to be accurate and reliable after years of continuous working.

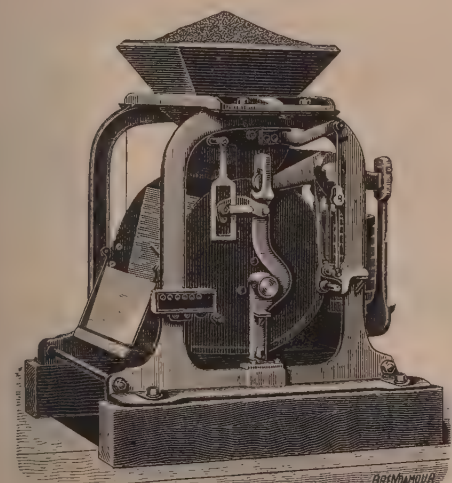
AUTOMATIC GRAIN SCALES A SPECIALTY SINCE 1876. HIGHEST AWARDS, GOLD AND SILVER MEDALS,

Used in all
Modern Elevators
in Europe.

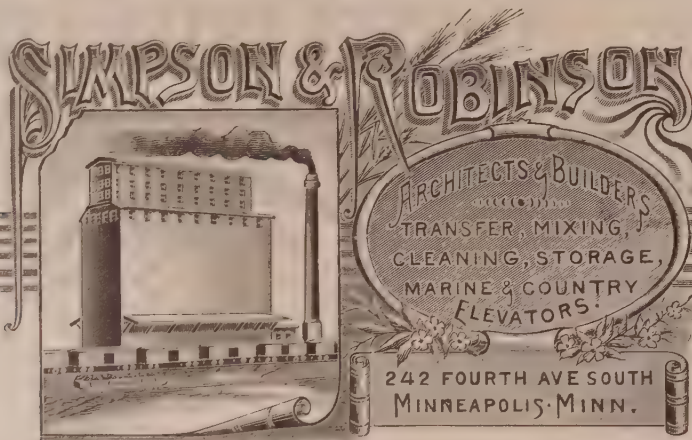
THE "CHRONOS" EFFECTS A GREAT SAVING
OF TIME, LABOR AND MONEY.

Patented in
America and
Europe.

For further Information, Illustrated Catalogues, Prices, etc., apply to

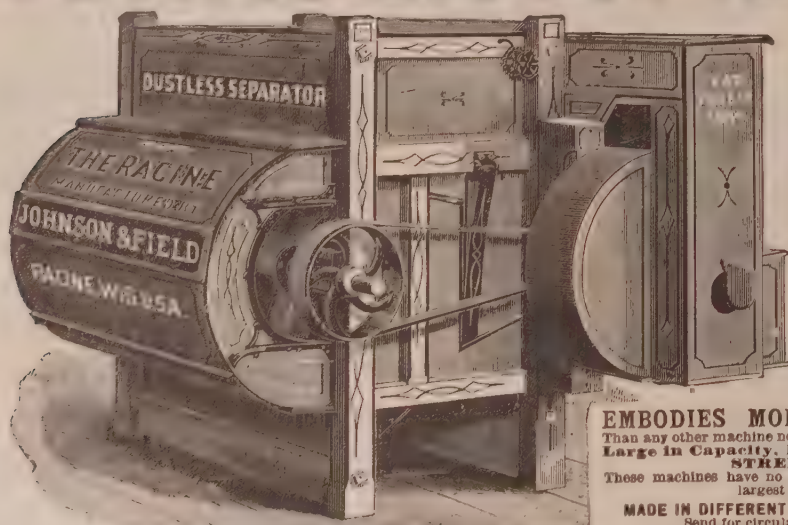


C. REUTHER & REISERT, - 74 Cortlandt St., NEW YORK.



JOHNSON & FIELD CO.

MANUFACTURERS OF THE



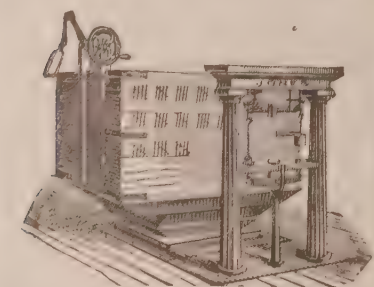
DUSTLESS GRAIN SEPARATOR

EMBODIES MORE POINTS OF EXCELLENCE
Than any other machine now offered for similar purposes. **Light Running,**
Large in Capacity, Perfect in Separation, and with **GREAT**
STRENGTH and DURABILITY.
These machines have no equal. ADOPTED and INDORSED by many of the
largest Mills and Elevators in the country.

MADE IN DIFFERENT SIZES TO SUIT DIFFERENT REQUIREMENTS.
Send for circular with testimonials and prices. Address

JOHNSON & FIELD CO., - - RACINE, WIS.

Jones, He Pays the Freight.



HOPPER SCALES.



RAILROAD Track SCALES.

Before purchasing, send for Price List of our Standard Scales.—None better.—Fully Warranted.—All sizes made.

—ADDRESS—

Jones of Binghamton

Binghamton, N. Y.



Roller and Detachable
**CHAIN
BELTING.**

DETACHABLE in Every LINK.

Especially Designed for

Elevators,
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Drive Belts,
Etc., Etc.

—For Handling—

GRAIN, SEEDS, EAR CORN,
MALT, COTTON SEED, COAL,
STONE, CLAY, PAPER PULP,
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Also manufacturers of the Gregory Grain,
Seed and Fruit Dryer; Meal and
Flour Purifier.

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THE JEFFREY MFG. CO.,
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STILWELL'S PATENT LIME EXTRACTING HEATER AND FILTER COMBINED.



Is the ONLY
LIME-EXTRACTING
HEATER
that will prevent
Scale in
Steam Boilers.
Removing all im-
purities from
the water before
it enters the
Boiler.

Thoroughly Tested.

OVER 8,000

of them in daily use

This cut is a fac-
simile of the appear-
ance of a No. 5 Heat-
er at work on ordi-
nary lime water,
when the door was
removed after the
Heater had been run-
ning two weeks.
Illustrated Cata-
logues.

STILWELL & BIERCE MFG. CO.,
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ROPP'S Commercial Calculator.

WE FURNISH

Ropp's Commercial Calculator, bound in
Gold Cloth, with Silicate Slate, for 75
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Bound in nice Roan Leather, with Pocket
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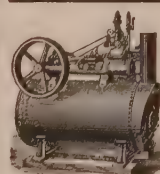
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Hand-Book of Land and Marine Engines.....	Price, \$3 50
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ELEVATOR ENGINES.

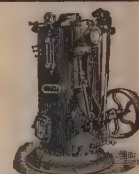
Upright and Horizontal, Stationary and Semi-Portable.

ALL SIZES UP TO SIXTEEN HORSE POWER.

Illustrated Pamphlet sent free. Address,

JAMES LEFFEL & CO., Springfield, Ohio.

Eastern Office: 110 Liberty St., New York.



ROOFING

GUM-ELASTIC ROOFING FELT costs only
\$2.00 per 100 square feet. Makes a good roof
for years, and any one can put it on. Send stamp
for sample and full particulars.

GUM ELASTIC ROOFING Co.,

39 & 41 WEST BROADWAY, NEW YORK.

Local Agents Wanted.

J. L. OWENS & Co.,

Manufacturers of

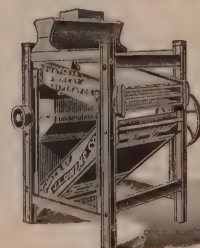
The DUSTLESS
Grain and Flax

SEPARATORS.

To clean all kinds
of Grains and Seeds,
made in different
sizes to suit differ-
ent requirements.
Send for Catalogue

with Testimonials and Prices. Address,

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SEEDS

THE ALBERT DICKINSON CO.,

Dealers in Timothy, Clover, Flax, Hungarian, Millet, Red Top, Blue
Grass, Lawn Grass, Orchard Grass, Bird Seeds, &c.

Warehouses 115, 117 & 119 Kinzie St. POP CORN.
104, 106, 108 & 110 Michigan St. OFFICES, 115 KINZIE ST.
198, 210, 242 & 264 Market St. CHICAGO, ILL.

BARNARD & LEAS MFG. CO.

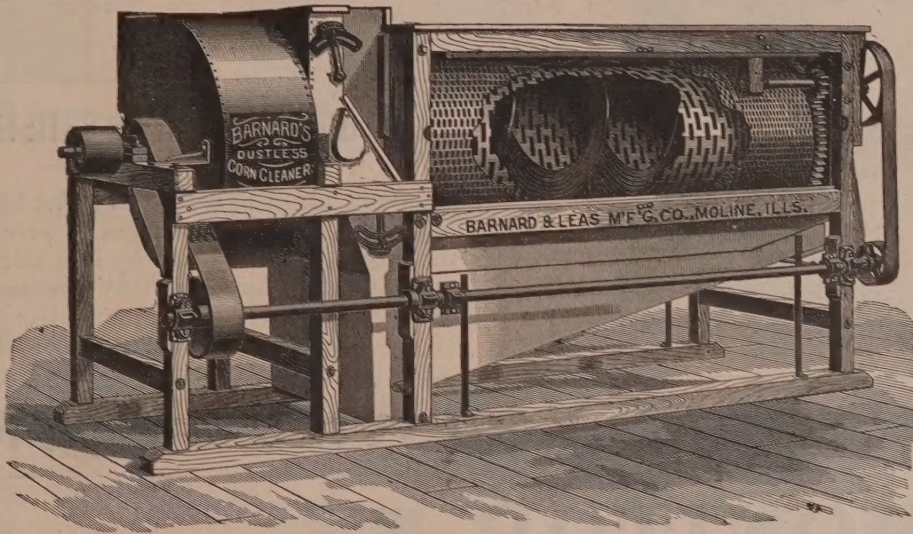
Moline, Illinois.

ELEVATOR MACHINERY.

COMPLETE ELEVATOR OUTFITS.

VICTOR :: CORN :: SHELLER.

BARNARD'S
Dustless Three Sieve
ELEVATOR
—AND—
WAREHOUSE
SEPARATOR



BARNARD'S
New Horizontal
SMUTTER
—AND—
SCOURER.
Especially adapted
for Warehouse
Purposes.

—BARNARD'S—

Improved Double Screen Dustless Corn Cleaner with Shaker.

FULL LINE SPROCKET WHEEL PATTERNS.

Shafting, Pulleys, Hangers, Boxes, Link Belting, Elevator Buckets, Iron Elevator
Boots, Dump Irons, Belting.

ELEVATOR SUPPLIES OF EVERY DESCRIPTION.

Messrs. **BARNARD & LEAS MFG. CO.**

BOWLING GREEN, OHIO, Nov. 16, 1888.

GENTLEMEN—Inclosed find draft for \$130.00, payment invoice Sheller. Think we have the best Sheller in the market. We have two of your Shellers in use. Would put in the third one if it were not so late in the season. Think we could save corn enough to soon pay for another one. Anyone making inquiry about Shellers, REFER THEM TO ROYER & COON.

Respectfully yours,

ROYER & COON.

SEND FOR PRICES AND DISCOUNTS.

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J. F. PAYNE, Sales Agent for Indiana,
79 W. Washington St., INDIANAPOLIS, IND.

M. M. SNIDER, Sales Agent,
1323 CAPITOL AVE., - DES MOINES, IOWA.

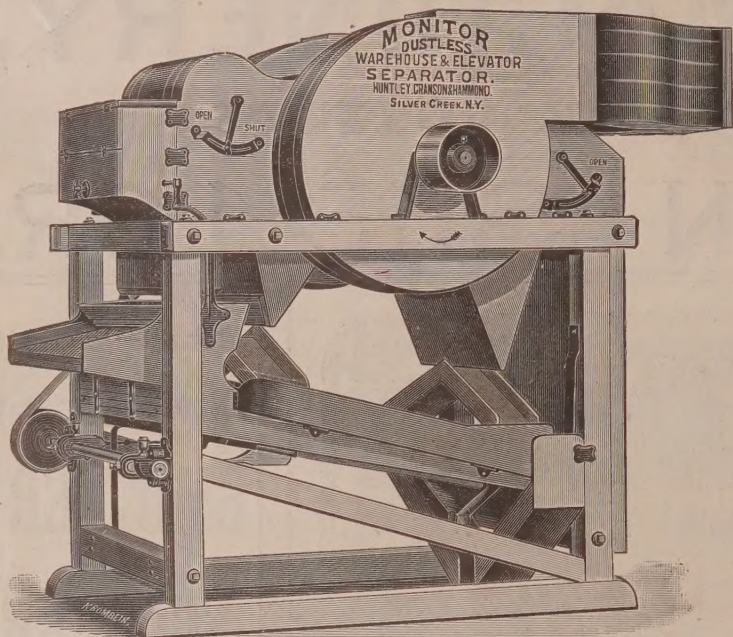
F. G. WALLACE, Agent,
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J. H. WILLIAMS, Agent,
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STILL ADVANCING

Not in Price, but in the Estimation of Users.



THE MONITOR SEPARATOR.

High Efficiency,

Perfect Regulation,

Superior Workmanship.

Positive Automatic Feed,

Thoroughly Controlled

Air Current.

Try it and you will be satisfied with no other.

Our MONITOR SEPARATOR is now in successful operation in a large number of prominent elevators, and the class of work done by it is attracting much attention and favorable comment. We claim to have the best machine for the purpose ever manufactured, and the testimony of the many users substantiate our claims in every detail.

INVESTIGATE AND YOU WILL BE CONVINCED.

THE MONITOR OAT CLIPPER

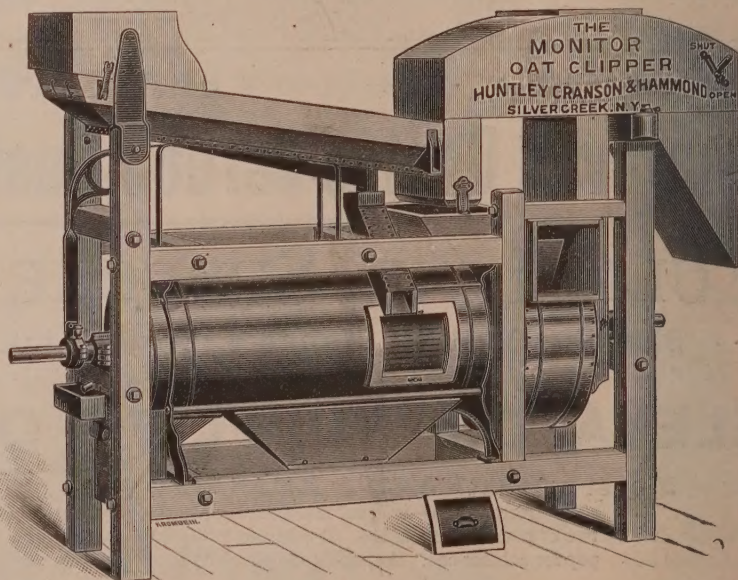
Will Separate, Clip and Polish Oats.

WORTHY OF A PLACE IN EVERY ELEVATOR.

THOROUGH WORK, LIGHT RUNNING, DUSTLESS.

The clipping of oats is now considered a necessity by all elevator men, and in offering our MONITOR CLIPPER to do this work, we know that we offer a machine superior to anything heretofore in use, and a machine that has received the approval of every one who has used it, or seen it in operation.

If you are interested in a machine of this kind you will be benefited by writing for full particulars.



A complete line of our machines can be seen and full information obtained at our

Western Branch, 63-65 South Canal Street, Chicago, Ill.

Write for Circular, Prices, Etc.

HUNTLEY, CRANSON & HAMMOND,

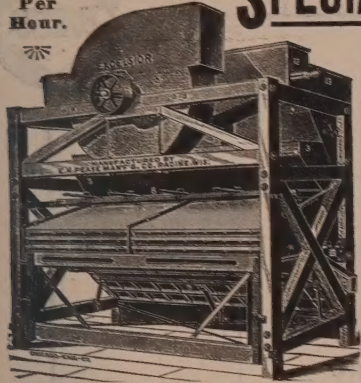
SILVER CREEK, N. Y., U. S. A.

B. F. RYER, { 63-65 SOUTH CANAL ST., } Chicago, Ill. HENRY SIMON, { 20 Mount Street, MANCHESTER, ENG., }
 Manager Western Branch. GENERAL AGENT FOR EUROPE.

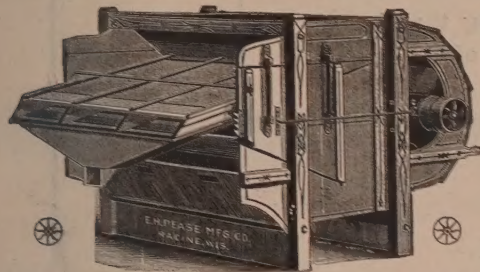
Four Sizes from 300
to 2000 Bu. Capacity
Per
Hour.

SPECIAL GRAIN HANDLING MACHINERY

—FOR—
GRAIN ELEVATORS
MILLS.
MALT HOUSES
—AND—
BREWERS.



Excelsior Dustless Elevator Separator.



Several sizes, Styles and Capacities of End-Shake, and Side-Shake Warehouse Mills.



"HERCULES" POWER CAR PULLER.

CAUTION!

DO NOT BE DUPED
into buying INFERIOR
CLIPPERS by misrepresen-
tations of our
Jealous Competitors.

THE MAKER

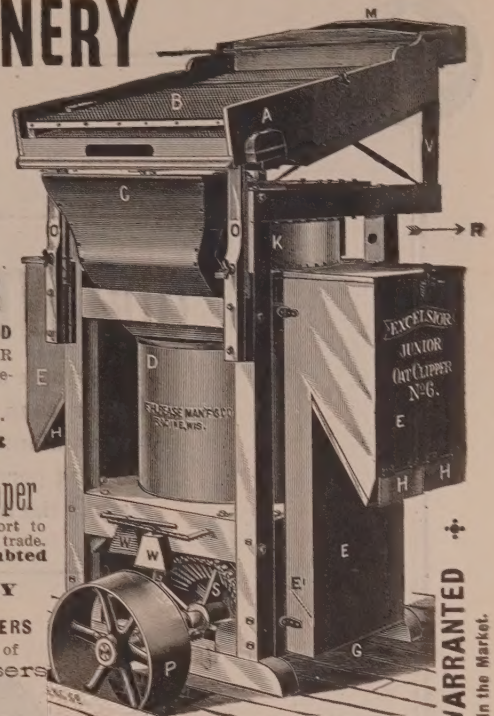
Successful Clipper

does not need to resort to
such measures to gain trade.
We will give Undoubted
evidence of the

SUPERIORITY

OF THE
EXCELSIOR CLIPPERS

over the signatures of
A Host of Users



"Excelsior Jr." Oat Clipper, Polisher and Separator.

PLENTY MORE TESTIMONIALS.

Letters similar to sample below, on hand for inspection of Buyers.

"Suppose you Write us for Particulars."

SENECA, ILL., May 8, 1890.

E. H. PEASE MFG. CO., Racine, Wis.

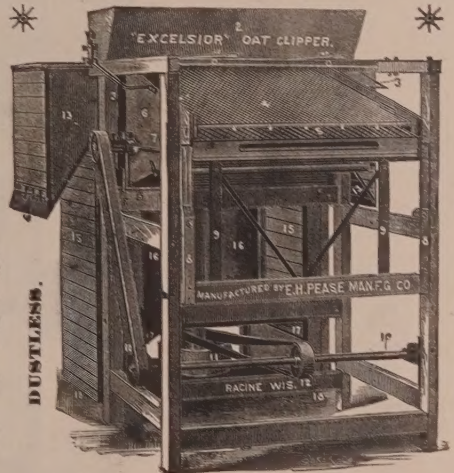
GENTLEMEN: In December, 1888, we bought one of your No. 8 "Excelsior" Combined Oat Clippers, Separators and Graders, and have clipped at least 250,000 bu. of oats with it without a cent of cost for repairs, and consider it one of the most valuable pieces of machinery in our elevator. Before buying, we examined other clippers in operation, but could find none we thought compared with the **Excelsior** in capacity or work. We have no trouble to raise the weight of oats anywhere from 3 to 10 lbs. per bu. and can change the grade while machine runs at full speed by moving the governing weights upon the regulating levers. A few days ago we went to see a clipper work and judging from the work it was doing it is a total failure as an oat clipper.

We would not exchange our **Excelsior** Clipper for a 10-acre lot of clipper. We have yet to see a machine that will come up to your No. 8 **Excelsior** in quality or capacity. Our machine has done better than you claimed for it and paid for itself long ago.

We tested our clipper a few days ago by clipping 3,500 bu. of oats by actual weight, with less than 1-2 lb. waste per bu. We also shipped two cars of oats from same bin to same commission merchant in Chicago, viz.: One car clipped and one car not clipped, we got 1-2 cents per bu. more for the clipped than the unclipped oats (1-2 cent per bu. covers cost of clipping and waste) ***** etc.

Yours truly,

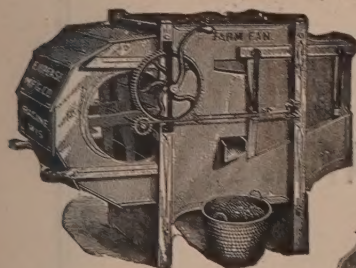
HOGAN & NEILSON.



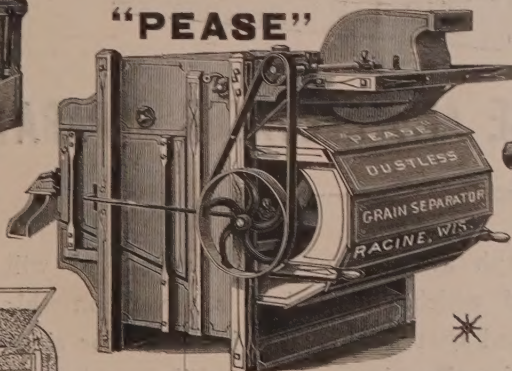
"Excelsior" Oat Clipper and Separator.

With same Power, Conditions of Grain, and other like Circumstances.

THESE MACHINES ARE FULLY WARRANTED
To Excel any Other Similar Machines of like sizes in the Market.



ALL SIZES AND STYLES OF
"Pease" Farm Fanning Mills.



DUSTLESS SEPARATORS.

OUR SPECIALTIES

—ARE—
Oat Clippers,
"Pease" Farm Fans,
"Pease" and "Wells"
Warehouse Fanning Mills,
"Pease" Dustless Separators,

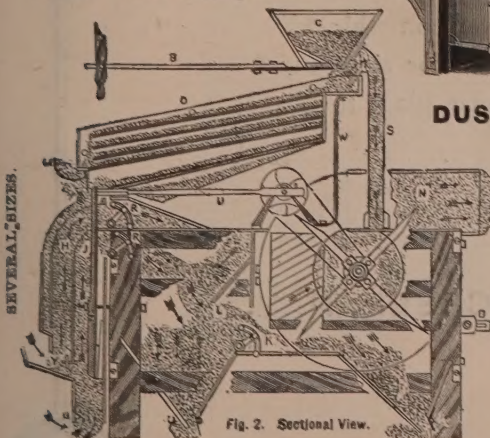
EXCELSIOR

Receiving Separators,
Grain Graders, Cleaners
and Polishers, Car Pullers,
Bag Trucks, Warehouse Trucks,
ELEVATOR SUPPLIES,
Etc., Etc.

CLIPS OATS, CLEANS, SEPARATES AND GRADES ALL KINDS
OF GRAIN. POLISHES WHEAT, BARLEY, MALT, RYE & OATS.



"EXCELSIOR" COMBINED OAT CLIPPER AND SEPARATOR, GRADER AND POLISHER.



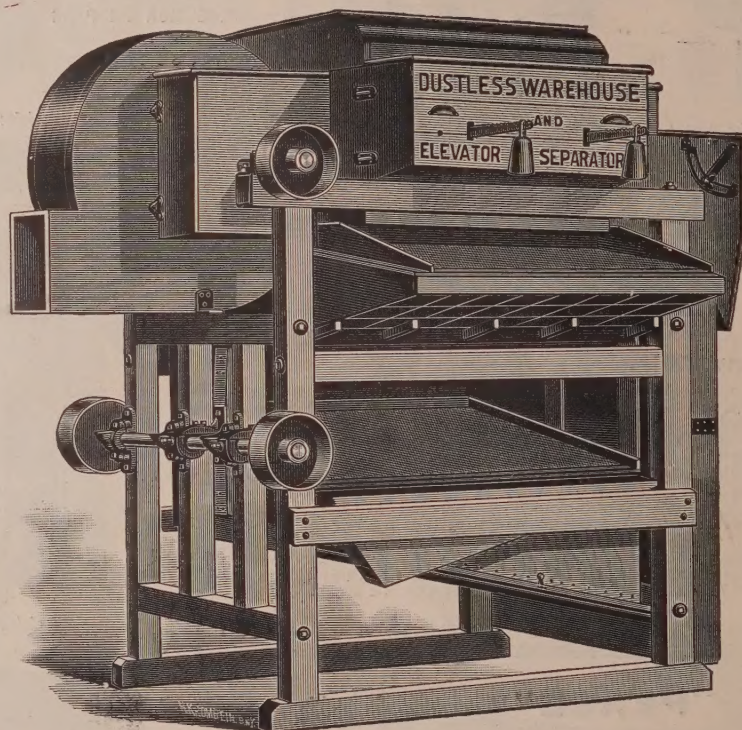
Excelsior Dustless Separator and Grader.

E. H. PEASE MFG. CO., RACINE, WIS., U. S. A.

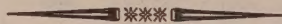


One Who Knows Says:

People are learning that it doesn't pay to lie in an advertisement any better than it does anywhere else. The theory that "a sucker's born every minute and he is just as likely to buy of me as of any one else" won't do for a permanent thing. Business men are rapidly learning that honesty is the best policy in an advertisement as well as outside of it.



THE EUREKA WAREHOUSE AND ELEVATOR SEPARATOR.



Referring to the paragraph at the head of this page, I will only say that the machine, of which illustration is given on this page, is built in eight sizes and that no machine intended for similar service is its equal in performing that service. I'll be glad to reply to all inquiries.

S. HOWES,

SOLE PROPRIETOR
EUREKA WORKS.

SILVER CREEK, N. Y.

